

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Cecil A Moore <Cecil_A_Moore@ccm.ch.intel.com>
Subject: [2695] <KN> addressed station only

I had a "Who's On First" CW QSO last night. I forgot what
-.-. means so I asked in Morse code,

what is the meaning of -.-.

The guy answers,

what is the meaning of what?

I tried again - same results. Went and looked it up in a
book and realized there are some questions that one just
shouldn't ask in Morse code. :-)

73, Cecil, W6RCA, OOTC (not speaking for my employer)

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Paul R. Valko" <prvalko@Oakland.edu>
Subject: [2651] A Roaring Borealis
Message-ID: <Pine.OSF.3.91.961023100606.14979A-100000@saturn.acs.oakland.edu>

Ordinarily, CW's a mode I preferred,
but on VHF it is so rarely heard
that when one does hear a CW beat,
it's certain to rouse this OM from his seat.

So swirling the dial of my 2 meter rig
I jaggled the volume and thingamajigs
as I tried as I could, to make out a tone
I heard a CQ, was there nobody home?

I popped on a preamp and swung round the beam,
(was it really CW or just a bad dream?)
To quiet the family, I shut the shack door,
I listened and listened, then listened some more.

I heard the CQ but there's something else too
the signal's so buzzy, was this something new?
Then it hit me like Tyson, I know what is this!
Aurora! (my goodness) the Borealis!

The fellow was calling, "CQ AU," see?

He was looking for someone and the someone was ME!
I turned the beam north, flipped the amp up to "SEND"
QRP doesn't cut it with space waves, my friend.

"I worked him I worked him!" I shouted with glee.
Was that EN-21 or EM-33?
Naw, it doesn't matter, we got our report,
with aurora you keep QSOs really short!

We exchanged RSTs of 55A two way,
An "A" for the TONE? Now how is that, pray?
No an "A" means AURORA where there's never good tone,
It's all done on CW and not done on phone.

Then I worked Wisconsin's own, PWP,
He asked, "QRP-L?" and I said it was me!
He said, "Hi ya Paul, my name is Paul too"
We laughed and both signed with a "72!"

I QSO'd others across the midwest
but a station in Maine was the furthest and best.
This rare propagation was really quite fun
and we owe it all to that big gas-ball the Sun.

So that's my fox hunt report from last night
No, I wasn't on forty, it wouldn't be right
all the fun up on two I just could not miss
our Earth kissed by the Sun and the Borealis.

73! =paul= wb8zjl

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Ed Diemer <diemer@ccnet.com>
Subject: [2710] AD811/EDN item
Message-ID: <326EDF49.6847@ccnet.com>

By now both Paul Hardin and Brian Kassel have made posts on the article
about the use of an AD811 oscillator to drive a 50 ohm load. It is in
the October 10, 1996, issue which happens to be Issue 21.

EDN often has items of interest to hams. They now have some of the
magazine on the internet. You will find them at <http://www.ednmag.com/>

They have a public area which shows the "current" issue. They also have
an "EDN Registered Users Area" where you can search past issues.

Unfortunately, what is considered the current issue is issue 19, two before the one we're referencing! (Wait a few weeks and you may be able to download the schematic from the web page!) The back issues presently go back about three years; a new magazine is out every two weeks. It's worth looking at periodically.

Ed Diemer, N6SVD
diemer@ccnet.com

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: David Adams <dave@flowserver.stem.com>
Subject: [2682] Antenna to phone jack?
Message-ID: <9610231938.AA22236@flowserver.stem.com>

Greetings! In my endless quest to upgrade my CW skills, I have brought a receiver (little 40m DC job from qst...I'm really starting to have a great junkbox...I can actually throw things together without running to HSC!)...as can be expected, an antenna is a prob in the office (I listen to the rig whilst writing sops and reports on the pc).

I seem to recall from my old shortwave days that there appeared fairly regularly on rec.radio.shortwave, a rather simple circuit to connect your rig to the phone jacks and use pacbell as an antenna. Performance was fairly decent as I did try it once. However, I have lost all reference to this circuit. Has anyone done it? Have the circuit handy? Alternately, does anyone have the pinouts on a standard phone line so that I can block the nasty stuff?...well... I can look that up.

Regardless, any info appreciated.

73 de dave, n9uxu

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Brian Kassel <bkassel@enet.net>
Subject: [2700] CIRCUIT 1 W EDN TX
Message-ID: <326F1017.243E@enet.net>

Folks:

I have a copy of the original EDN magazine article, and a copy machine here in the shack. If anyone would like a copy mailed to them by snail mail, or by FAX, please let me know and I'll be glad to comply.

No charge BTW of course :>)

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*****
* Brian D. Kassel W5VBO - QRP NERD 10 - ScQRPion #17 *
*           QRP-L #404   - ARCI #3623                *
*****
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From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996

From: Paul Harden <pharden@aoc.nrao.edu>

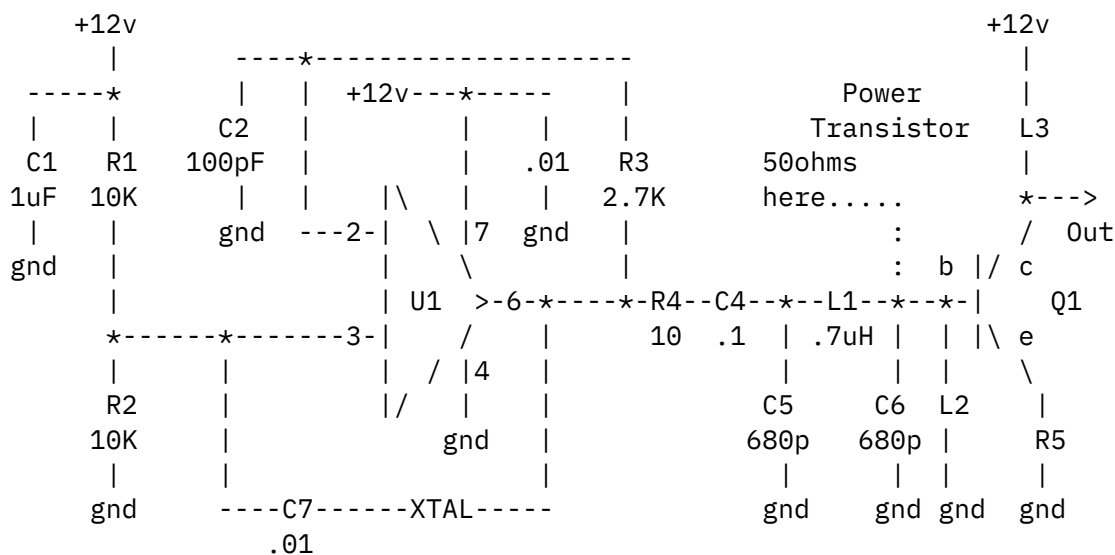
Subject: [2694] CIRCUIT: 1W EDN XMTR

Message-ID: <199610232233.QAA29155@zia.aoc.nrao.edu>

1-WATT TRANSMITTER by Charles Kitchen N1TEV

>From Electronic Design News, Oct. 10, 1996

COMMENTS AND NOTES AT BOTTOM



	C2	C5,C6	L1	U1=AD811AN or other	L2 only if
				wideband op amp	Q1 is used
For 80M	200pF	1500pF	1.4uH	(BW ~100MHz or more)	
For 40M	100pF	680pF	0.7uH		

DESCRIPTION FROM ARTICLE (Synopsis only)

U1 is an AD811 ... a 140 MHz, high speed op amp configured as a crystal controlled sine-wave oscillator. R1-R2 bias the op for mid-supply (+6v if +12v Vcc is used). Positive feedback loop is through the crystal to cause oscillation at the XTAL frequency. R3-C2 is the negative feedback for dc stability. Choose C2 for an $X_c=200$ at operating frequency. L1-C5-C6 is the low pass filter to remove harmonics, cleanup the sinewave, and make the output

50 ohms (where shown on the schematic). C5-C6 should be equal values for driving 50 ohm loads. This point can directly drive an antenna for a couple-hundred mW. Output impedance of U1 is 30 ohms with R4. At C6, output RF will be about 5v p-p with +9v Vcc and 7.5v p-p with +12v supply into 50 ohms. L1 can be hand wound on a 35-mm film can: 4T for 0.7uH, 6T for 1.4uH. L2 is an RF choke for a low dc resistance from Q1 base to ground and does not add to the op amp loading. Use L2 ONLY if adding Q1. Check to ensure L2 does not resonate at the fundamental or harmonics. (No value offered in article)

COMMENTS

Article does not say much about power amplifier Q1 (except to add L2). It would be a typical PA similar to the 49er, NC40a, etc. It would be 50-ohm input (from L1-C5-C6) and another similar filter would have to be put on the Q1 output. Of course, a suitable coil to develop the RF voltage would have to be in the Q1 collector lead to +12v (L3). Most PA stages would have LESS than a 50-ohm input impedance, and LESS than 50-ohm output. This would require some reworking of the filter values. BUT, it would be a workable circuit as-is with some efficiency loss through the improperly matched filters.

If I were to build one (and just might), I would probably make R4 a 50-ohm pot and adjust it for maximum output from Q1, suggesting proper match to the Q1 base input impedance. (Or at least change R4 in ten ohm or less steps).

This circuit should work with any wideband op amp. But it would have to have a bandwidth of 100MHz or so. Your 741's are out! Time permitting, I might try to build up the circuit, including Q1 for the full 1W (or whatever?) out. If there is enough interest, perhaps I can purchase some AD811's to sell onezie-twozie. Unfortunately, Analog-Devices are not sold by hobby suppliers, and a shame, as AD has some really neat devices.

Needless to say, if anyone builds this thing, with or without Q1, let us know how you did it and how it works (power out, etc.).

72, Paul NA5N

PS - This is from the same Charles Kitchen of Regen receiver fame. He is an engineer at Analog-Devices.

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Bob Tellefsen-CNSE97" <Bob_Tellefsen-CNSE97@email.mot.com>

Subject: [2678] Daniel Wee Questions

Message-ID: <M1113140.008.qsv18.1.961023190213Z.CC-MAIL*/OU=LMPCC10/OU=ILBE/
PRMD=MOT/ADMD=MOT/C=US/@MHS>

I'd like to thank Daniel for raising these questions and those of you who take the time to answer them. I'm sitting here quietly taking notes, as Daniel is asking about an area that interests me also.

Your efforts are appreciated.

72, Bob N6WG

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996

From: Paul Stroud <aa4xx@amsat.org>

Subject: [2620] Fall ARCI QSO Party

Message-ID: <326D91BD.636A@amsat.org>

Hi Gang,

Well, the Fall ARCI QSO Party is over now, and judging by the huge scores being posted to QRP-L, it was the Mother of ALL QRP Contests--at least in (my) recent memory. I'd like to share some feelings about the contest with you.

First, it was really neat hearing so many familiar calls, including fellow KnightLites AA1BK, AD4ZE, AE4IC, AE4EW, N2TNN, K3TKS, N1RXT, W2KJ, W03B, W8KUX, WJ2V, WA8LCZ, and KF8EE.

With Hurricane Fran having left me with no antennas to work with, I had no choice but to use a newly constructed 80M off-center-fed windom (fed with about 150' of ladderline). The antenna is broadside N/S, at a height of 60 feet. The rig was a Wilderness Sierra, pumping out 250 mW. I can't say enough about how well the Sierra performed. The receiver is definitely up to the task to handle crowded band conditions, it it can hear a gnat fall to the ground on the West Coast (Y'all do have those critters out there, don't you?).

It's Saturday morning, and what do I hear but "R AE4IC, ur 599+."
Oh, NO! It's Bob, and he's got a choke hold on 7040 KHz with ten thousand guys lined up to get him in their log...I give him a call, four calls (sheech). Umpteen calls later I hear him send "QRZ A???X?" He gives me a 329 signal report as I lick my wounds. Hmmmmmm...time to get serious.

Time passes quickly, with some guys actually hearing my peanut whistle. Hey, THIS IS FUN! I Wonder if this homebrew Windom will work on 20M? She loads up just fine, but will anybody hear me? Pa-LEEZE work. Hot Dog!...W7LNG (OR), AE0Q/7 (WY), and several more make it into the logbook. Each 20M entry brings about a big grin.

It's off to 40M (no time to eat, barely enough to RUN to the bathroom). Boy, 40 is hot..I work most of the louder stations and start waiting in line to work the weaker ones. I bounce back and forth between 20, 40, and 80. There sure are a lot of North Carolina boys working the test this go-round. Maybe they won't stay up past midnight. Boy, I'm hungry! It's 0500Z on 40M, and there's W5VB0--weak as dirt. "QRZ A?4??"...Five minutes later, W5VB0 (Arizona) gets it all. What a guy!!! Hey, there's Glenn - AE0Q/7, camping in WY. I've never worked WY before. What the heck! WY gets in the log. How can he possibly hear me? Wonder what he's using for an antenna?

My personal goal was to work CA on ANY band sometime during the contest. After calling several 6-land dudes, I started concentrating on WA6YEE (40M 0545Z). The feeling was very akin to surfing, with signal levels rolling up and down. Finally, there he was, calling CQ in the clear. After 1 hour of hand wringing, WA6YEE was placed in the log. Hallelujah, life is good!

All you guys may never know how much those extra listening efforts meant to a NC boy, hunched over his Sierra during the (19.4) long hours of the Fall ARCI Contest. It was an experience I'll not soon forget!

I guess the major things I learned are that 250 mW can be sufficient to make a good number of contacts and that SPC multipliers are EVERYTHING. More importantly, it was reaffirmed that CW is alive and well within the QRP ranks. A number of operators demonstrated a remarkable ability to copy signals right at the noise threshold.

"The score?," you ask. Sorry, you'll have to wait for the next QQ to find that one out. I'd like to think that some more QRP'ers will consider trying 250 mW or less in future contests. If you're looking for a real challenge, give it a try. While we may not score at the top of the list, we will definitely meet a lot of FB operators, and have an absolute blast!

Thanks for the fun, guys...See you next ARCI Contest...

72,
Paul AA4XX Fuquay-Varina, NC

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Bob Tellefsen-CNSE97" <Bob_Tellefsen-CNSE97@email.mot.com>
Subject: [2677] Female hams
Message-ID: <M1113141.009.qsv19.1.961023190213Z.CC-MAIL*/OU=LMPCC10/OU=ILBE/
PRMD=MOT/ADMD=MOT/C=US/@MHS>

I agree the ladies seem to be a minority. There may be many more out there than we know about. We just don't hear from or about them.

In my own club, Alameda County Radio Club, the president is a woman, and has been for many years.

We have at least 10 licensed women that I can think of immediately, with possibly a couple more that are new. Many of them are active in our field day each year, usually specializing in voice modes. Only a few have shown an interest in cw so far.

They also participate in our public service activities, like festival or parade communications

Anyway, we are glad to have them.

72, Bob N6WG

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Ronald Hands <Ronald.Hands@freenet.hamilton.on.ca>
Subject: [2638] FOX
Message-ID:
<Pine.GS0.3.95.961023095536.15050B-1000000@james.freenet.hamilton.on.ca>

Got him!

But it was certainly a struggle to hear Tim under the QRO QRM, the Latin-American SSB and, below that, steady exchanges of some kind of digital crud (HF packet?).

I found it was impossible to pick out the fox from all this competition until I fired up the MFJ DSP (the Radio Shack DSP wasn't quite equal to the task). Good test of receiving equipment. Good test, too, of aging "ear bones" -- as Pogo used to say.

-- Ron VE3SP
ronald.hands@freenet.hamilton.on.ca

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Bill Acito 23-Oct-1996 1529 <acito@asdg.ENET.dec.com>
Subject: [2681] FOX - my first one
Message-ID: <9610231931.AA21638@us1rmc.bb.dec.com>

My first for the season. Nice job by Tim, considering the QRM and digital on this end. I just had to wait for someone to get into the sweet spot of my Gap Titan... you 2's and 3's are tough with a low radiation angle. I've got to get an inverted V or windom or G5RV up for these things...

Worked with a 757GX, 5W and the ground-mounted Titan.

b

. - I own my own words -
Bill Acito
acito@asdg.enet.dec.com
|d|i|g|i|t|a|l| Digital Equipment Corporation Hudson, MA

KC1GS qrp-ne qrp-1 adv-rs arci norcal amsat-na arrl-life

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Ahrens Tim" <tahrens@devmail.sps.mot.com>
Subject: [2648] FOX - Prelim Results 10/22
Message-ID: <9609238460.AA846095530@devmail.sps.mot.com>

Chuck, oh Chuck, what have you done? That California filter didn't work! The label was obviously tampered with... did you get the filter while you were at Pacificon? I pulled off the tag, and whoa... in tiny helvetica letters it said: "50dB TX filter". You need to pick your friends a bit better! :-)!

Here's the scoop from last night's Fox run:

I had a FANTASTIC time! Everybody was very patient, both with me, and each other. What a great crew to have on board!! There were some pretty good pile-ups at first, then things slowed down a bit... but always somebody was calling. My apologies to those couple (3 I think) of guys that I just couldn't pull

through... maybe conditions will be better next round.

Yeah, I know I was sending the State & my name in reverse order...
I figured the CA guys wouldn't catch on that it was the fox....

Actually, I had pre-loaded the memory keyer with all RSTs & such,
and only when the event began did I figure out what happened...
Oh well, not worth the effort to re-load properly! Everybody
figured it out anyhow!

THE RIG:

Wilderness Sierra - 2 watts (with KC2)
RShak DSP-40 (used some, but not the whole time)
MFJ tuner
W03Bs logging program for the PSION3A. thanks a bunch
Bob - it worked great!

Antenna: 3 el 40 meter yagi at 120 feet!! ooooooh

When I got home from work at 3 o'clock, (I took off early to
get ready), I noticed that N3BBs 3 el yagi had shifted from
horizontally polarized to 30 degrees down! That cold front had done
some serious blowing! I even climbed the tower to see if I could
'push' it back in place. HA! neeeever mind! Oh well, it was probably
better than my 135' dipole at home (which by the way was only 100 yards
away from N3BBs house)! It did still seem to have some directivity..
although I thought I heard something in the headphones like an armadillo
rooting around...naaah....musta been those SSB signals.

I don't plan to use the antenna for 'normal' fox hunts...but wanted to
give a little more advantage to those folks who might not have been
able to make it otherwise..

Larry - W1HUE - how do you get every other dit to be on a different frequency?
That really sounded .. different! It did work tho.... <:-)

Again, thanks to everyone... no records were set, but I'll sure remember it!

cu

Tim WA5VQK

ps: If anybody sees anything strange with your entry, please let me know. I'll send out the final version tomorrow with any corrections.

	Time	Pwr	Call	Sent	Rcvd	Name	State	Nr/Pwr
1	1:02	2	K5UP	559	579	GLENN	OK	21
2	1:03	2	WA8CDU	579	599	BILL	MI	412
3	1:04	2	W8DN	589	599	MIKE	OH	575
4	1:06	2	N4KFL	559	589	AL	PA	36
5	1:09	2	KK7BD	449	559	DAN	AZ	696
6	1:11	2	KU7Y	559	559	RON	NV	17
7	1:13	2	W1HUE	569	539	LARRY	ID	228
8	1:14	2	WA0RPI	559	579	JIM	MN	5w
9	1:16	2	AE4IC	559	579	BOB	NC	54
10	1:18	2	AE2PF	559	599	DAVE	NY	306
11	1:20	2	N6ULU	569	559	STAN	CA	66
12	1:23	2	VE7SL	449	559	STEVE	BC	769
13	1:27	2	K2VNM	449	335	BOB	NY	735
14	1:29	2	W03B	559	549	BOB	MD	195
15	1:32	2	NQ7X	579	579	FLOYD	AZ	343
16	1:34	2	KI7MN	579	459	BOB	AZ	271
17	1:36	2	KK6MC	569	339	JIM	NM	411
18	1:38	2	N6WG	559	559	BOB	CA	27
19	1:40	2	NA5N	559	559	PAUL	NM	38
20	1:41	2	WA6HHQ	569	559	ERIC	CA	4w
21	1:43	2	AK1P	559	559	PAUL	CA	284
22	1:45	2	K1MG	559	479	MIKE	CA	614
23	1:46	2	N2GO	559	579	JIM	NY	381
24	1:48	2	AA0XI	569	559	MARSHALL	CO	153
25	1:50	2	NN9K	589	599	PETER	IL	5
26	1:51	2	N9DD	579	589	TOM	IN	32
27	1:53	2	K9DZE	569	589	ALLEN	IN	112
28	1:54	2	KE4YH	559	559	STEW	FL	580
29	1:56	2	KB9IUA	559	599	KEVIN	IL	384
30	1:58	2	NY9B	559	449	ROY	IN	446
31	2:02	2	N2VPK	579	339	MARK	NY	314
32	2:06	2	KE4KT	449	559	ROY	KY	322
33	2:08	2	W00Q	449	559	MARTY	CO	4w
34	2:12	2	KA5DVS	559	559	TIM	NJ	63
35	2:15	2	K2NF	559	599	NORM	FL	220
36	2:18	2	KC1GS	449	459	BILL	MA	214
37	2:20	2	VE3SP	569	569	RON	ONT	464

38	2:22	2	KA3WMJ	569	539	KEN	PA	355
39	2:26	2	KC1FB	449	559	Sorry - just couldn't get it		
40	2:29	2	AD4ZE	559	599	WARREN	NC	78
41	2:33	2	W3PNL	449	559	JOE	PA	5w
42	2:36	2	W9ZSJ	559	569	GEORGE	IL	1w
43	2:39	2	WA6NAE	449	449	DWIGHT	CA	5w
44	2:41	2	KC7NEV	449	559	JOE	AZ	191
45	2:43	2	W6BAB	559	569	HARVEY	CA	2w
46	2:45	2	K06KA	559	589	ROB	CA	176
47	2:48	2	AA7WT	559	559	MAL	MT	2w
48	2:51	2	AA6RK	559	559	GARY	CA	406
49	2:52	2	AB6MY	559	599	GARY	AZ	571
50	2:54	2	AA7QY	559	569	ROGER	AZ	62
51	3:03	2	AB7HI	549	339	STEVE	WA	68

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From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
 From: Marshall Emm <75230.1405@compuserve.com>
 Subject: [2662] Fox Dropings
 Message-ID: <961023163130_75230.1405_HHB66-2@CompuServe.COM>

>>Tim had to pull me out of super strong QRM on the EXACT freq that he was operating on, and boy was it tuff! Took 2 tries but bingo. Only way I could hear Tim was because ONE of the QRO guys was weaker and I jumped in during his turn in the QSO; actually couldn't hear Tim's QRP-L # 'cause right at <<

Boy that sure sounds exactly like my situation, and I give Tim full credit for pulling me out out of the jam. There seem to be some QRO ops who think the proper way to start a CQ is to send QRL? CQ.... if they bother to send QRL? in the first place. My other favorite is VVVVVCQ CQ CQ.... Anyhow, Chuck's comments were spot on except he left out Critical Factor #3, which is SKILL, by means of which some ops will succeed where others fail. Tim did have to ask me to repeat my name, but I'm pretty well used to that... been thinking of changing my name to Ed. Or perhaps ET (which is already a local nickname I own, thanks to a humorously clumsy fist who kept sending my call as ETET0NAEE).

73
 Marshall
 AA0XI/VK5FN

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: [2622] FOX Night at the Ranch
Message-ID: <199610230405.EAA04337@chuck.dallas.sgi.com>

I bundled up, built the fire, looked up to make sure I had the time right and sure enough I did. I was ready.

Got the rig warmed up early. In fact was down at 7.010MHz listening to the pileup on P40DX. Don't know why he was so popular, but all the big guns were down there warming up the ionosphere.

So at the appointed hour I dialed up to just below 7.040MHz. POW! SLAP! BANG! Geeez Batman, what's happening? Sounded like a DX pileup for two hours. Timmy had them hollering all night.

But I could not hear narry a peep or see any part of the fox. Did hear some 6's, like N6ULU calling him, so my guess is that CA took this round at the plate. If Jack, W5TFB, didn't get him then it's over for tonight.

I copied a bunch of calls that I recognized from the list.

What some of us outta do is record what we hear on our end and collect them somehow. I'd guess that AIFF format could be played using the web software. Tim's pileup sounded very impressive here in Dallas.

Think he set a new record? Guess an old student of mine done good.

dit dit

: Chuck Adams (K5FO CP-60) WAS 40m/30m/20m=49/49/50
: EMPS QSOs=2 STATES(w/c)=2/0 DX=0
: MO TN

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: kb0rol@juno.com (Bradley L Mugleston)
Subject: [2627] FOX SWL REPORT
Message-ID: <19961022.232226.10327.2.kb0rol@juno.com>

Well, the Novice fox showed up around here at 0110 - heard his call clear and clean but no reply to my 4 watts. I lost him soon after that and looked for another hour and a half till I got TB (tired butt) and my ears started to hurt. Listened in on LOTS of QSO's maybe my speed will pick up after all.

I think I heard his pile up at 0215 but some QRO opp started calling CQ CQ CQ on the nice clear section of the band. 8-(

What was the noise I kept hearing. It sounded like someone playing a violin with a loose rubber band string. Kind of a hummy rubber band sound - real strange.

Brad Mugleston - KB0ROL
Colorado QRP Club # 170, QRP-L #316, ARRL
QTH - Aurora, CO - DM79oq
KB0ROL@JUNO.COM
BMUG@GWL.COM

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Michael A. Gipe" <mgipe@reliablemeters.com>
Subject: [2664] FOX: Call the doctor!
Message-ID: <199610231651.LAA25491@multi2.pic.net>

I'm in pain. For some reason, I still have the letters W 4 S E Z bouncing around the inside of my cranium.

Old Sol must have forgotten his number 40 and broken out in blisters. What a contrast. Monday night, 40M propagation was near zilch. Only the noise made it through. Tuesday night, a pin dropping in Kuala Lampor made three QSOs before it stopped bouncing. Noise? Sorry, there wasn't any room on the band for QRN.

QRM? Well, that's a different story -- one that I'll probably be telling my grandchildren. These are actual S meter readings at K1MG:

empty spot (ha) S0
WA5VQK S7
W4SEZ S9 + 40
pile up on WA5VQK S9 + 20

The ESP filter was having a hard time of it. That JPS DSP filter I saw at Pacificon is looking mighty attractive now. Too bad I don't have one.

This was a DX-pedition class pile up. One listen and I knew that this was gonna take some serious work, otherwise my 4 watts and G5RV were not gonna

cut it. Jumping into the pileup wasn't gonna work. It's pretty ironic that I posted a message about using RIT and split operation just the day before, because that's just what it took. I put the transceiver into split, set VFO A on Tim, and scouted around the competition with VFO B. Then I saw my chance. AK1P (another left coast transplant) was working Tim just a little outside of the pileup, so I lined up VFO B right on Paul. When they were done, I put my call right in the middle of Paul's wake, and BAMM!, one fox bites the dust.

I don't know how you did it, Tim. Smooth and unperturbed the whole time! Fantastic job! How are your ears this morning? Feel like they have fur stuffed in 'em?

I called the local Red Cross office this morning and explained the disaster in Texas to them. Since they have often called on hams to help in other disasters, they were quite sympathetic. I am happy to say that 100 cases of tomato juice are being airlifted into Texas as you read this.

An interesting observation on QRP courtesy: When a couple of ragchewers accidentally start up on top of a DX pileup, they get jumped on by lots of kilowatts. When the same happens to a QRP pileup, the QRPers tighten up their filters and keep going.

I didn't have much time to operate after the fox, but I did catch Turks and Caicos Islands at the bottom of 40! My tuner wouldn't load up on 3.560, but I did listen to a nice high speed QSO for code practice.

We're having fun now!

Mike K1MG
Saratoga, CA

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Joe Gervais <vole@primenet.com>
Subject: [2625] FOX: (LONG) Tales of the Hunt
Message-ID: <199610230517.WAA28497@primenet.com>

Howdy Folks,

[First a bit of uncharacteristic yet theraputic venting]

Sheesh, what the heck was up with W5LQD and W4SEZ, aka the Dynamic Duo of Zero-beat S9+20 30wpm QRM? I'm tragically resigned to the fact that there exist hams who'll start up a sked/QSO without ever calling QRL?, but this one took the cake. There's no way they couldn't have heard the pileup. For an hour I was stuck listening to their stories of travel, etc. while I desperately tried to find the Fox under their QRM. Best thing I heard W5LQD send all night was "enjoyed the chat ... 73". For once I wished I couldn't copy code that fast. Their QSO was forcing its way into my brain like some insipid Muzak tune. Blech! I feel violated.

[There, I feel better now. Group hug... :-)]

After coming up with a game-bag full of air Monday night from the NY hunting grounds (I think I *may* have heard one or two hunters for a few brief minutes...), I primed my double-barrel RF generator for TX, full of hope. Got on the air a few minutes late, but found the Furry Texan right away. Hard not to with a pileup half the size of North America on his tail! He was weak, but I had hope. Then the Dynamic QRM Duo appeared, and my heart sank. Hope resurfaced about 20 minutes later though, when the Fox's sig kicked up to a solid 559 and the QRMers faded to a mere 579. This was my only chance! Fellow ScQRPion Floyd (NQ7X) had caught the same scent and bagged The Furry One as soon as he poked his head out. It was my turn. Nice and loud. Tim came back to a 4-call. And another 4-call. He was fading. Fast. He was gone! Argh! I not only missed the window, it slammed on my fingers and jammed shut. Ouch....

My spirits sank yet again. The QRMers were back to S9+, and both the Fox and the pileup disappeared. One hour left. Desperately switched between my dipole and Hamstick vertical. They both sucked equally well. :-/ Never give up, never give up. I repeated the Mantra of the Fox Hunter, over and over again, almost believing it. Finally the QRMers signed off. 40 minutes left. I could barely hear the Fox. I couldn't hear *any* hunters. Not one. Very eerie. The Fox was handing out 559-579 RST's to folks I couldn't even hear. Grim. To quote a certain whacked-out Space Marine from the movie "Aliens", it was "Game over man! Game over!"

And then, with 20 minutes left, the impossible happened. The Fox was getting louder. The needle on my Guess Meter nudged. Then it wiggled. Then it was hopping all over the place. S5-S7. Whoa! The Furry One was back! I sent my call. I missed

him. Waited, sent my call. Missed him again. I was getting nervous. This was the last time the window would open up for me tonight. Now or never. Sent my call. Even pressed my straight key down extra hard to get every spare mW out of the rig. :-)
Bingo! Tim comes back to me! Solid copy! We do our exchange, then he dives back into the bushes, giving RST's to a ghostly pileup I can't hear. Wow!

Sheesh, what a roller-coaster ride of emotion! If these Fox hunts stay this intense, I'm going to have to double-up on my medication.... :-)

Thanks Tim!

Cheers de KC7NEV,

-Joe, vole@primenet.com, AZ ScQRPions

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: PDouglas12@aol.com
Subject: [2640] Fox: Caught him hiding under couple of QRO lids
Message-ID: <961023100748_216645442@emout04.mail.aol.com>

I know someone will flame me for using the term, but last night's fox was running a very extensive pileup at about 7037 and Tim was doing a bang up job too. Unfortunately, a pair of yahoos who obviously had a sched and didn't give a damn about whether the freq was in use or not (not a chance they called "QRL?" before they started), came on about 300Hz above the fox. They buried Tim so badly that he went from working a pile up to calling CQ and looking for answers.

I am pleased that someone id'd them, and I dearly hope the word gets back to them that they need lessons in consideration.

Now, on the other hand, my Sierra with front mounted VBT control was able to slice off that top 300Hz just enough to still hear Tim. That surprised me, because I didn't realize how tight that filter could go. I never needed it before! (Sunspots, sunspots come again another day.) And, despite the QRM, I think Tim got enough of me to have me on his list. Hope so. I have been having very little luck with the hunt this year--limited op time hasn't helped either. Anyway, I second the motion that the Sierra (especially with the KC2) is some radio.

Other operating included a very nice QSO up on 3650 (Didn't hear any Chucks up there, though.) with another QRPer and a SSB checkout with my friend in Poughkeepsie, Father Bowes. His new Argosy sounds fine. Only one trouble

with all this operating activity. Can't build and operate at the same time.
So this weekend, I have plans to get most if not all of the White Mountain
done and reported on. Oh, and I suppose I'll have to watch the seventh game.
(Yes, there will be a seventh.)

72,

Preston WJ2V

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Peter Simpson/US/3Com <Peter_Simpson@3mail.3Com.COM>
Subject: [2630] FOX: in the brambles
Message-ID: <9610231124.AA8186@hqsmtp2.ops.3com.com>

I heard him! Tim was 579 in MA at the start of his
shift, but I was only one of what sounded like a couple
of hundred hounds chasing him. Things degraded shortly
afterwards, what with QRO CW and SSB stations deciding
to plop themselves right on top of the poor furry one.

Tim made good use of the natural surroundings, though,
choosing a spot right under a digital station. :-) I heard
him about a half hour before the end of his shift, almost
worked him, but just couldn't hold on as he ducked back
into those digital brambles.

Thanks, Tim, for trying. If it hadn't been for the QRM,
I would have got you. I had lots of fun trying, though.

Peter, KA1AXY

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Bill Myers <bmyers@destin.nfds.net>
Subject: [2635] FOX: QSL Report
Message-ID: <1.5.4.16.19961023075323.2707f582@destin.nfds.net>

Found Tim with NO PROBLEMS, 589 when he started (20 over S9 for meter
watchers). Even tried to catch him for the first couple of calls, then
listened and thought he was rare DX, must have been "thousands" calling.
Kinda sounded like that bee hive I knocked down from a tree as a younger
person. About 20 minutes into the hunt, his signal started fading, but I
could still make him out, and his speed was still in my range. Up and down
signals, I was perched on the edge of my seat ready to pounce on
him...when...BAM...lost at least two ear drums when the supersonic QRO

station called his buddy and they warped into a conversation. About 10 minutes later, when I got my hearing back, I tried hear Tim, but he was still up and down. Occasionally I would hear the hunters score. By the time I think I heard Tim, his speed was above my abilities (I really gotta get out of the novice bands and get my speed back up!!!!!!) and since I wasn't sure, I left it alone...

Oh Well...another time. BUT I definately heard the fox this time...AND the pack.

72/73 to All

--

Bill Myers KK4KF FISTS #2390 QRP-L #755 ARRL

Snail Mail P. O. Box 178

Shalimar, FL 32579-0178

Grid EM60rk

e-mail <bmyers@destin.nfds.net>

homepage <http://destin.nfds.net/~bmyers/>

CHECK OUT THE FISTS INTERNATIONAL CW CLUB HOMEPAGE

<http://n9nvv.qrp.com/~fists>

^^^^ That's N 9 N V V

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996

From: "Bob Tellefsen-CNSE97" <Bob_Tellefsen-CNSE97@email.mot.com>

Subject: [2679] FOX: Tim WA5VQK

Message-ID: <M1113137.005.qsv15.1.961023190212Z.CC-MAIL*/OU=LMPCC10/OU=ILBE/PRMD=MOT/ADMD=MOT/C=US/@MHS>

Nice job, Tim.

Was a real challenge pulling your Sierra through when those two QRO stations decided to ragchew right on top of you.

Had to use every weapon in the arsenal to slice you free of the QRM--two narrow crystal filters, bandpass tuning and a DSP filter at 50 Hz! Even tried switching antennas to see if one might improve your signal while reducing the QRM at the same time. Didn't help, though.

Great tribute to Wayne's Sierra design that you were stable enough to stay in that passband.

Anyway, one more hide for the barn door.

Thanks, Tim, and 72.

Bob N6WG

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: John Dorson K2JHU Real Estate Consultant <jdorson@bbs.mpcs.com>
Subject: [2629] fs 30 mtr backpacker II
Message-ID: <199610231102.HAA30015@bbs.mpcs.com>

great condition with keyer. need money for other project otherwise i
would keep. \$105.00 with s&h in us...

John Dorson Real Estate Consultant in Brevard County Florida
E-Mail To: jdorson@bbs.mpcs.com

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| Trying for WAS -      AL,AK,AZ,AR,CA,CO,CT,FL,GA,IL,IA,KS,KY,LA,ME,MD,MA|  
|                      MI,MN,MT,NH,NJ,NY,NC,ND,OH,OK,OR,PA,RI,TX,VT,VA,WA|  
|                      WI                                           |  
|-----|
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K2JHU only QRP... CQC #351, GQRP # 9092, QRP-L #672

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: PaulKB8N@aol.com
Subject: [2706] FS: TenTec Corsair I
Message-ID: <961023215021_1645275516@emout17.mail.aol.com>

Gang,

I have a beautiful Corsair I with two filters (standard SSB and 800Hz CW).
It works well on all bands, and looks nearly perfect in appearance. It
suffers the "squirrely VFO syndrome" at the low edge of the band, and I
recommend a VFO rebuild kit (available from TenTec for \$20.00), although the
problem is temporarily cured by running the VFO dial back and forth to its
limits a few times.

The price is a very reasonable \$525, shipped lower 48. I have an Astron 35M
power supply (35 Amp with voltage and current metered) in mint condition to
go with it for \$130, or will sell the two for \$625 and will split USPS cost.

This is a great radio and magnificent QRP rig (goes right down to
milliwatts), am selling to purchase Omni VI. The power supply is the last
one you'll ever need...you can power an HF rig, all your QRP radios, your 2M

rig, and charge up your new General Motors EV-1 at the same time!!!

Please respond by \E-Mail or call me at 210-493-6265 before 10PM CDT evenings.

72/3, Paul, KB8N

Thank you, Paul, KB8N, please EMail or call at 210-493-6265.

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: AE0Q / V31RY <v31ry@ix.netcom.com>
Subject: [2649] FS: R-X Noise Bridge
Message-ID: <2.2.16.19961023093115.2aa7123e@popd.ix.netcom.com>

I'm posting this for Roger, please reply directly to his e-mail address if interested.

For Sale: Palomar Engineers

R-X Noise Bridge, Excellent
Condition. \$40 and I'll pay
the shipping via US Mail.
Includes owner's manual and
complete set of instructions.

WB0JNR Email aq328@freenet.uchsc.edu

(303) 693-4244 or P.O. Box 460101
Aurora, Colorado 80046-0101 USA

73 -- Glenn AE0Q/V31RY

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "W. D. (Doc) Lindsey" <70511.3041@compuserve.com>
Subject: [2709] FS:Original Norcal 40
Message-ID: <961024033335_70511.3041_IHD98-2@CompuServe.COM>

Gang:

For Sale = original Norcal 40 QRP transceiver. Have two, only need one.
This rig is beautifully constructed by a member of the Norcal club. It

is not the kitted version. Works great, and a joy to see and use.
Includes manual.

Cost = \$80.00 including shipping in USA.

Interested?--contact me via private e-mail.

TKS es 73,
--Doc/K0EVZ

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "James C. Owen, III" <owen@apollo.eeel.nist.gov>
Subject: [2644] FS:TenTec
Message-ID: <40343.owen@apollo.eeel.nist.gov>

The followings items were spotted for sale on the Packet BBS. I thought that some of you might be interested. I know nothing about these items other than what you read here and don't reply to me. 73 Jim K4CGY

TenTec 580 Delta with VFO, Speech Processor and 250 Hz filter. All in excellent condition. Asking \$380.00. Call Bill WD4HCC at 502-886-0005

TenTec Corsair II with remote VFO, Speaker, Power Supply and Hand Mic. Asking \$825.00. Call Bill WD8KPR at 517-681-5479

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: PDouglas12@aol.com
Subject: [2659] Fwd: Fox: Caught him hiding under couple of QRO lids
Message-ID: <961023120913_131504519@emout16.mail.aol.com>

Chuck forgot to cc the list, so here's his reply to my post, without which everything else we posted won't make sense.

PJD

In a message dated 96-10-23 10:50:05 EDT, adams@chuck.dallas.sgi.com (chuck adams) writes:

<< Subj: Re: Fox: Caught him hiding under couple of QRO lids
Date: 96-10-23 10:50:05 EDT
From: adams@chuck.dallas.sgi.com (chuck adams)
To: PDouglas12@aol.com

Preston et.al.,

Pileup is the proper term. From Dallas, except for about 6dB to 10dB difference,
Tim's pileup sounded a lot like the P40DX pileup at 7.010MHz. Beehive is a good term.

I don't think we can do anything about the interference gang. The fox has the right and in fact should move a few KHz to get out of the way. I'd suggest down from 7.037 or 7.035, or wherever the fox starts. A lot of guys seem to have prescheduled QSOs around the 7.040MHz area. Something about that number.
40m is getting much better and the noise levels are going down from QRN. A lot more people are going to be getting on as the season moves along.

You guys think you got it bad. I have N5SU, who is about 1.5km from me, and he has a regular sked with a Maritime Mobile 6-land friend. Whit is almost 80 years old and I have worked him several times. A nice guy and he doesn't mean to be a pain, but several times he has caught me with the AGC off (different rigs) and it hasn't done any damage yet. And he is running full power limits.

One of the secrets that I forgot to mention the other day, but I think this is common sense. I run earphones ALL the time. Hate speakers because sound reflections from walls interfere at higher freqs and higher speeds. I also run the minimum volume that is possible and still copy the signal. Two reasons:
the first being to preserve my hearing as long as possible and the second being a physics thingy that if you pulse a membrane with high levels of energy it will 'ring' or oscillate or vibrate for a longer period of time. This does interfere from one code element to the next. I know it sounds like science fiction but I think I know what I'm talking about here. Been there. Done that. My personal suggestion is to try lower volumes if possible. Now I'm doing the same thing as you guys. When listening for the fox I have the audio gain a little or a LOT higher than usual. This is a gamble. A big signal comes along and your ears are toast.

Last night I had Phyllis come in and listen to the P40DX pileup. It was awesome.

That guy has been doing that several nights in a row. You guys go down there and listen a little tonight and see if it is still going on. Band was in great shape.

Then later when Tim came on I asked Phyllis to listen again to how the QRPers too can have pileups. :-)

Let us not get a bad rap or reputation for bothering operators that cause us QRM. We'll just have to move a little and adjust and cope with the problem. Yes, there should have been some listening and there should have been a QRL? sent, but not everyone thinks of it. Sounded clear probably when they started.

Let's keep our reputation as being gentile and a fine group of operators and ladies and gentlemen. Remember what Shakespeare said about good and evil deeds in his writings of Caesar.

Part of being a QRPer and in fact being a ham in general is to manage to have fun with all the stuff going on. Digital, SSB, and other interference is part of the modern scheme of things. It'll get worse before it gets better.

This is not in any way detracting from Preston's posting. He and I talk regularly.

I owe him one trip to NYC to visit. He is right. I just don't want any over reacting to the situation by anyone not waiting 24 hours and seeing how really important it is in the real scheme of the universe.

Soap box off. Beam me up Scottie.

dit dit

: Chuck Adams (K5FO CP-60) WAS 40m/30m/20m=49/49/50
: >>

Forwarded message:

From: adams@chuck.dallas.sgi.com (chuck adams)

To: PDouglas12@aol.com

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996

From: Joe Gervais <vole@primenet.com>

Subject: [2702] FYB0: Antennas

Message-ID: <199610240015.RAA00244@primenet.com>

Howdy All,

So Jay (WA5WHN) is busy testing his radios for drift in liquid nitrogen chambers, Brian (W5VB0) is shopping for a new pair of Bermuda shorts and Oakley sports shades, and I'm already behind on my own planning for the FYBO Field Day. Which leads me to my favorite topic (next to Fox Huntin'!) - antennas.

Big ones. Huge amounts of wire in the sky. All of it radiating RF beautifully on a crisp, clear winter's day up in the Arizona mountains. Then I think of those clear skies giving way to snow storms and freezing rain, loading up my wire with ice and weighing them down 'til they snap and fall to the ground in a pathetic pile of copper spaghetti.

OK, so it'd be nice if they were slopers, minimizing the ice buildup. Inverted vees will do the trick, as will verticals, but I want more gain toward a chosen azimuth. Which brings me to Vee beams. I've got a soft spot in my heart for these critters (it was a MARS call home via a field-expedient Vee beam that got me hooked on Ham radio). Never actually built one myself though.

Has anyone played with Vee beams in the field? As I recall, if you ground the ends properly you can null out the signals off the back of the antenna, and if you can get a few wavelengths of wire on each leg at the correct angle, you get some serious gain. Four of these puppies aimed at each corner of the U.S. and you could blast your way into anyone's receiver.

In theory. To good to be true?

Please cc: responses to the List if you think it's appropriate. Thanks!

Cheers de KC7NEV,

-Joe, vole@primenet.com, AZ ScQRPions

A Tribute to Tim the TX Fox:

"Oh the Fox hunting's delightful,
But the QRM is frightful,

Will they ever end their QS0?
Heavens no! Heavens no! Heavens no!" :-)

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: nskousen@scientech.com (Niel Skousen)
Subject: [2657] Grid Square ?
Message-ID: <v02140b05ae93f17c3a5a@[198.60.91.132]>

Is there site/URL w/ info on Grid Square generation and useage ? How does
one identify one's own location w/o a coded map ?

TNX 72
CU Tonite as Novice Fox
Niel

Niel Skousen, SCIENTECH Special Projects nskousen@scientech.com
208.525.3742, FAX 529.4721 Idaho Falls ID WA7SSA QRP-L.119

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: nskousen@scientech.com (Niel Skousen)
Subject: [2665] GridSquare - WOW
Message-ID: <v02140b08ae93ffdf9d40@[198.60.91.132]>

Thanks to all who took the time to respond (and Thanks Jay for the
telephone call... !) I got it fig'rd out

72
Niel Skousen
WA7SSA DN33wm << :-)

Niel Skousen
nskousen@scientech.com

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996

From: torell@sicom.com (Kent Torell)
Subject: [2685] HB: AD9850 first look
Message-ID: <v02130502ae93fbaeee95@[192.91.202.41]>

First results are in from the breadboard AD9850 DDS. We opted for cheap and simple for the first cut. As usual on these high tech things, the software is the major effort, and the hardware is fairly simple. The DDS board consisted of a 5 volt regulator, the DDS chip, a 50 MHz oscillator, and a low-pass filter. The controller used a PIC16C84, a shaft encoder, two pushbuttons, another 5 volt regulator, and a Hitachi LCD display module. My partner in crime, Eric Brombaugh, KC7GXA, designed and coded the interface. He spent quite a few evenings working on the assembly code. He is also the 'spark' behind starting the project.

The documentation was fairly good on the DDS, but quite a few programming subtleties were glossed over...finally got the part to work correctly. We are not too pleased with the chip interface; it pretty much needs a dedicated program clock line, which eats up another i/o pin on the controller.

The spurious outputs are as advertised, and about what you could expect from the technology...harmonics down about 60 dBc, dds spurious around 65 dBc. The third harmonic is the largest, with the 2nd about 5 dB below it. Output power was -3 dBm. Sounded good on a receiver.

Power consumption. The boards were set to operate on 5 volts to start; controllers and the DDS can operate on 3 volts, which will drop the power consumption in half. For this test board, the primary supply was around 9 volts regulated to 5 volts with 78L05's. Current consumption was around 75 mA, with 21 mA being taken by the 50 Mhz oscillator. It should be straightforward to cut this current draw in half at 5 volts. For the ultimate in efficiency, a switching regulator could be used, generating 3 volts. There is a fairly large effort amongst the semiconductor people to make high efficiency 3 volt regulators for the laptop market, so we may be able to take advantage of that shortly.

Next steps. Software, of course ;-) Tx/Rx offset switching, memories, etc. Then we'll patch it into a rig and see how it works on the air.

72, ab7oa

Kent Torell torell@sicom.com 602-483-2867 x40
SICOM 7585 E. Redfield, #202 Scottsdale, AZ 85260

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Jim Eshleman <lujce@hooch.CC.Lehigh.EDU>
Subject: [2636] JUNO and QRP-L digests
Message-ID: <96Oct23.092213-0400edt.65735-18193+378@hooch.CC.Lehigh.EDU>

To all those suffering from limits on incoming e-mail size,

If you'd like to receive the QRP-L daily digest try the following. It's the best we can do at the moment. Send the following commands, in the body of an e-mail, to listserv@Lehigh.EDU:

```
SUBSCRIBE QRP-L John Doe WB3BKG
SET QRP-L MAIL POSTPONE
AFD ADD {qrp-l/digests daily}
```

You can omit the first command if you're already subscribed. Please use your own name and call if you do send the command. The second command "postpones" your subscription so you'll receive no list mail, but you'll still be able to post to the list. You can omit it also if you're already "postponed" or don't want to be "postponed". The third command signs you up for Automatic File Delivery of the specified file, in this case the daily digest. Be careful, the part inside the "curly braces" is case sensitive and must be sent exactly as shown. Cut and paste if you can.

The net effect of all this is that you should receive the daily digest daily, in multiple pieces of less than 64Kb each. You have to figure out how to put them back together into a single file if you so desire.

Let me know if this solves your problem, or not...

73

Jim N3VXI n3vxi@Lehigh.EDU
Tech+ 40M QSOs=1 STATES(w/c)=1/0 DX=0

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: d.nordquest@juno.com
Subject: [2645] JUNO Limits & Digest Size
Message-ID: <19961023.110534.4783.0.d.nordquest@juno.com>

Thanks, Jim! That will help alot.! I think the Juno limit may be a little less than 64K.
Someone on the list told me, but I've lost the info. Maybe they can respond.

Dave KE9ED

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Lau, Zack, KH6CP" <zlau@arrl.org>
Subject: [2704] KH6CP/1 Test Results
Message-ID: <m0vGESU-000f6CC@mgate.arrl.org>

+48 ARCI members (now 800+) 737,583 claimed score A-4 24hrs

QRP DX: N4BP/VP9 YS1ZRB G4AP0 ON4US FB1MUU(10W)
Y05CL(8W) KP3S EA8/DK8SX TA2BD

--Zack KH6CP/1 zlau@arrl.org

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Bob White" <Bob_White@CCMAIL.sms.lmco.com>
Subject: [2642] Milliwatting/ARCI QRP QSO Party
Message-ID: <9609238460.AA846091980@CCMAIL.sms.lmco.com>

Milliwatters.

I need inputs for the QRCI QQ Milliwatting column.

Please send me reports of your Milliwatting experiences during the recent ARCI QRP QSO Party. Include your operating location, station equipment used, antennas used, hours worked, and operating experiences during the contest.

Thanks,
Bob White W03B
bobwhitewo3b@geocities.com

P.S. I only worked a couple of hours total (40 and 80 meters), but had a ball! 200ma took me North to ME, South to PR and West to CO. I missed the East to DE! Perhaps I will plan a camping trip to DE next year for the ARCI QRP QSO party! Signals sounded very good on my new SLV, but when I asked Bob AE4IC in NC, (on 40 meters), to compare it to my 571 foot loop. I recieved a "I hear you fine on the loop, but I can't make you out on the other antenna". I was amazed that he could even hear my 200mw with the SLV, if I had added another 10db of power, I am sure he could have copied me. More SLV testing to follow.

* Bob White W03B -- QTH Pasadena, MD (3907.44 7627.02) *

* HTTP://www.geocities.com/SiliconValley/5582 *

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: ccashion@spdmail.spd.dsccc.com (Charles Cashion)
Subject: [2666] Mystery Guest
Message-ID: <199610231717.MAA13253@spd.dsccc.com>

Mystery Guest wrote (mg>)

mg>
mg> I am currently a Director in the North Hills Radio Club (NHRC), THE BEST
mg> AMATEUR RADIO CLUB IN THE WORLD. Please feel free to check out our web
mg> page at:
mg> <http://www.ns.net/~NHRC>
mg> I'm sure you'll enjoy it.
mg> Oh yes, the rest of the qrp-1 group is invited also.
mg>
mg> 88s, 72s/73s, emarro
mg>

So, emarro (aka mg), are you allowed to reveal your
true identity?

72s,

Charles Cashion, W5ISZ, QRP-L#76, ccashion@spd.dsccc.com

```
+ - - - - - +
| Nine out of ten cows agree.....you should eat more chicken. |
| Nine out of ten chickens agree...you should eat more vegetables |
| sun1055!ccashion@uunet.uu.net is * NOT * a valid address!!! |
+ - - - - - +
```

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: jeffa@ix.netcom.com (Jeff Anderson)
Subject: [2633] Need fox info...
Message-ID: <199610231223.FAA03260@dfw-ix12.ix.netcom.com>

This fox hunting sounds like fun! What are the schedules and what
is the exchange supposed to be?

Thanks for the info.

- Jeff, WA6AHL

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Brian Jones" <brian_jones@uk.ibm.com>
Subject: [2672] NO SUBJECT
Message-ID: <199610231839.0AA62133@nss2.CC.Lehigh.EDU>

W9GR DSP (preferably Kit)

After months of very subtle hinting by me, my darling XYL has decided to buy me a DSP for my birthday. I am particularly looking at the W9GR mainly because it is in kit form (and hence a little cheaper + I get the fun to build it - but will be open to comments). There is only one stockist in the UK, they are out of stock with no delivery date.

I gather that Dave Hershberger (W9GR) doesn't take phone mail order (or credit cards). Anyone know any stockists in the US where I (sorry my XYL) can mail order one - preferably in kit form? Anyone got any idea of the US price? Anyone built the kit and got any comments re ease etc?

Now the XYL has had to blow the surprise wonder if she heard me muttering about a new paddle!

Brian G0UKB (KB8YKJ)

Brian Jones
Java Technology Centre
HURSLEY MP 146 Ext 246896 (+44 1962 816896)
BEJONES AT WINVMD brian_jones@uk.ibm.com

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Michael A. Gipe" <mgipe@reliablemeters.com>
Subject: [2653] Norcal project sneak preview
Message-ID: <199610231540.KAA23900@multi2.pic.net>

After the success of the St. Louis Vertical, you know that Doug, KI6DS, had to be working on another major breakthrough project for NorCal. We have obtained some secret photos of him working on the prototype of the "Camper's Delight 160M rig". Check it out at

<http://www.fix.net/~jparker/pcn15a.html>

Mike K1MG (don't tell anyone you heard it from me!)

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: [2668] NorCal Web Pages
Message-ID: <199610231750.RAA06093@chuck.dallas.sgi.com>

Gang,

That is fantastic!!!

My ten gallon hat is off to Jerry Parker and Dennis Utley for all the hard work that went into taking the pictures, downloading them to the laptop while the meetings were going on, and finally getting them onto the web site system and available. Ya do good work Pilgrim.

The pictures came out rather well. A lot of people will get to see and match a face to a call/name combo.

I'd like to take this time to point out one significant fact. In all but one of the pictures everyone was smiling or laughing. The only concentrated look that I saw was the one of me doing some serious judging. :-) I didn't mean to get so intense. :-) It was a tough job but someone had to do it. Even the adopted kid was smiling and having a good time.

Doug is a good friend but everyone can't help but notice that during these contests he doesn't have a chance. :-) Poor guy keeps awarding all those NorCal kits to the winners. I figure he's got one of each anyway. He gets to see them before we do anyway. :-) Keep it up Doug.

Hopefully in a short time Doug will be back and giving me a hard time again. Our best wishes and prayers for him and his family at this time.

So the next time you browse through the QRPers photo albums of the rigs, antennas, and other toys, take a note at the smiling faces. We are having fun.

One of the neatest toys that I saw at Pacificon was not owned by a QRPer. It was parked out front of the hotel.

It was an old VW van that was restored and painted red and labeled to resemble the old "Radio Flyer" wagon that we had as a kid. The engine had been replaced with a modern V-6.

Attached to the back of the roof was a tilt over GE tower with a HyGain TH-2 (the one that I'm going to restore) on top. The GE tower was a much smaller tower than any I've ever seen with about 9" per side, triangular, and this one about 30 feet or so. Two sections with the inner one telescoping inside the lower section. Nice QTTF setup possibilities. I talked just a minute to the owner and the GE tower is no longer made so it'll probably take a miracle to find a used one. I forgot to ask how much trouble it took to park, lower the three tripod pads to stabilize the van, and assemble the beam and raise the tower.

Again, this group has so much talent we outta get a patent. Probably a law somewhere on the books for having this much fun.

dit dit

: Chuck Adams (K5FO CP-60) WAS 40m/30m/20m=49/49/50
: EMPS QSOs=2 STATES(w/c)=2/0 DX=0
: MO TN

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Jerry Parker <jparker@fix.net>
Subject: [2624] NorCal's West Coast Symposium at Pacificon '96
Message-ID: <2.2.32.19961023044824.00dee2a4@fix.net>

I wish to thank everyone involved with the Symposium for a GREAT time!

It was a pleasure to meet those I had only worked or talked with via the Internet.

A special thanks to Dennis Utley and to Epson for such a great camera.

We used the PhotoPC Camera by Epson for the shots.

Yes, the page is now up and complete with lots and lots of pictures.

Go to the NorCal Page and check it out.

<http://www.fix.net/~jparker/norcal.html>

Also I have placed two pictures of Vern Wright's St. Louis Vertical in the article on same. This may clarify the detail for the base and

the top of the coil

Enjoy the pages, I sure enjoyed the Symposium!!!

72,,,Jerry...WA6OWR...K

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Richard Fisher <ki6sn@pe.net>
Subject: [2705] November Spartan Sprint
Message-ID: <Pine.GS0.3.95.961023183752.19167A-100000@magnolia>

The November Spartan Sprint will be held on November 4 (which is our standard date--the first monday of the month).

The Spartan Sprint is based on a simple but stimulating concept. We are encouraging all of you to cobble together the kind of station you'd use in a portable environment--lightweight transceiver, keyer, key, antenna tuner and battery. Then put that turkey on the air, and participate in a two hour sprint.

All operators are invited to play, whether or not they are members of Adventure Radio Society. Even if you don't have lightweight equipment, your participation will be rewarding, both for you and the other participants. We'll report the score in two different formats--absolute scores, and QSOs per pound of station weight. So you can get your kicks from running up a magnificent score, or achieving an remarkable ratio of Qs per pound.

ARS provides handsome certificates to the operators who achieve the top four scores in the Qs per pound category.

You can get a full explanation the Spartan Sprints from our web site, <http://members.aol.com/adradio/index.html>. The following synopsis, however, will give you all you need to participate.

1. Start at 9:00 PM EDT, 8:00 CDT, 7:00 MDT and 6:00 PDT.
Finish at 11:00 PM EDT, 10:00 CDT, 9:00 MDT and 8:00 PDT.

2. Beginning with the November Sprint, we will switch to 40 meters only (until next spring, when we'll go back to a 40/20 combo). The frequency will be 7040+- Khz.

3. Exchange RST, SPC (state, province or country) and power output.
4. If you choose to call CQ, use the format "CQ SP".
5. If you are operating under the portable QRP rules, add "/PQ" to your call. (You can find those rules at our web site, <http://members.aol.com/adradio/index.html>)

After the contest, send me an e-mail with your total QSOs and the total weight of your station (i.e., the combined weight of the transmitter, receiver, antenna tuner, key, keyer and battery). You may also include your comments from the soapbox. If you get that information to me by Tuesday night, I'll include your data in the contest results, which I'll publish on Thursday, November 7 on the ARS web site and the QRP-L. My e-mail address is Russ1031@aol.com.

If you're thinking about becoming a member of Adventure Radio Society, just send Richard Fisher (our membership chairman) an e-mail expressing your interest. Richard's e-mail address is KI6SN@aol.com. Membership is free, and the organization has a great group of men and women who combine their love of ham radio with their affection for the outdoors. You don't need to be a macho person; ARS welcomes people of all ages and levels of ability.

I'll be on a hiking trip in Bhutan during October, so if you've got any questions about the Spartan Sprints, please address them to Richard Fisher.

72, Russ Carpenter, AA7QU
ARS#1

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Charles Cashion <ccashion@spdmail.spd.dsccc.com>
Subject: [2650] one watt xmtr
Message-ID: <199610231535.KAA07575@spd.dsccc.com>

Paul Harden <pharden@aoc.nrao.edu> wrote (ph>)
ph>
ph> Can somebody provide the name of the
ph> magazine and date of issue? If it's not too
ph> complicated of a circuit, I'll try loading
ph> it as an ASCII schematic and post to the
ph> group. (Boy are those fun!).
ph>

ph> 72, Paul NA5N
ph>

magazine: EDN
issue: vol.41, issue.21
issue date: 10 Oct 96
page: 109 (and 110)
author: Charles Kitchin

You are welcome,
72s,
Charles Cashion, W5ISZ, QRP-L#76, ccashion@spd.dsccc.com

+ - - - - - +
| Nine out of ten cows agree.....you should eat more chicken. |
| sun1055!ccashion@uunet.uu.net is * NOT * a valid address!!! |
+ - - - - - +

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: wa5whn@juno.com (Jay D Miller)
Subject: [2641] Photos of Pacificon on NorCal Web Page
Message-ID: <19961023.082049.4447.1.wa5whn@juno.com>

Mr.'s Utley & Parker have done a fine job of arranging the photos &
reports, taken @ Pacificon, within the NorCal Web Page.

URL;

<http://www.fix.net/norcal.html>

...Jay, WA5WHN, Grid

Square: DM65qd

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: torell@sicom.com (Kent Torell)
Subject: [2687] propagation / aurora
Message-ID: <v02130500ae93e4b08796@[192.91.202.41]>

A geomagnetic storm is in progress, and there is a possibility for some
aurora watching tonite for northern US. Excerpts from bulletins follow.

MINOR GEOMAGNETIC STORM ALERT

ISSUED: 03:50 UT, 23 OCTOBER

POTENTIAL DURATION OF GEOMAGNETIC STORM: 24 TO 36 HOURS

POTENTIAL PEAK LOW-MIDDLE LATITUDE K-INDEX VALUES: 6

POTENTIAL PEAK HIGH LATITUDE K-INDEX VALUES: 7

EXPECTED DOMINATING LOW-MIDDLE LATITUDE K-INDEX: 4 - 5

EXPECTED DOMINATING HIGH LATITUDE K-INDEX: 5

POTENTIAL FOR LOW LATITUDE HF DEGRADATION: MODERATE

POTENTIAL SEVERITY OF HF DEGRADATION: MINOR

EXPECTED HF PROPAGATION CONDITIONS: MOSTLY GOOD TO OCCAS. FAIR

POTENTIAL FOR MIDDLE LATITUDE HF DEGRADATION: HIGH

POTENTIAL SEVERITY OF HF DEGRADATION: STRONG MINOR

EXPECTED HF PROPAGATION CONDITIONS: FAIR TO POOR

POTENTIAL FOR HIGH LATITUDE HF DEGRADATION: HIGH

POTENTIAL SEVERITY OF HF DEGRADATION: MAJOR

EXPECTED HF PROPAGATION CONDITIONS: VERY POOR TO USELESS

SUSPECTED SOURCE OF OBSERVED/EXPECTED ACTIVITY:

A well placed solar coronal hole.

ESTIMATED FORECAST PEAK PLANETARY 24-HOUR A-INDEX DURING STORM: 40 - 50

COMMENTS:

A strong burst of geomagnetic storming over the last six hours has pushed middle latitude geomagnetic indices above the minor storm threshold at 03:00 UTC. This activity is the result of a high-speed solar wind stream pushing past the Earth from a well placed solar coronal hole. It has not yet been confirmed whether a recent confirmed coronal mass ejection may be contributing to the activity.

Major to severe geomagnetic storming has been reported over many high latitude regions. Additional minor to severe storming is expected throughout the local night sectors over the next 24 to 36 hours.

AURORAL ACTIVITY MAY BE OBSERVED APPROXIMATELY NORTH OF A LINE FROM...

NORTHERN OREGON TO IDAHO TO NORTHEASTERN WYOMING TO SOUTH DAKOTA TO
NORTHERN IOWA TO NORTHERN ILLINOIS TO NORTHERN INDIANA TO OHIO TO

PENNSYLVANIA TO NEW JERSEY.

ACTIVITY MAY ALSO BE OBSERVED APPROXIMATELY NORTH OF A LINE FROM...

NORTHERN FRANCE TO BELGIUM TO GERMANY TO POLAND TO NORTHERN RUSSIA
INCLUDING ALL OF ENGLAND/IRELAND DENMARK, NORWAY, SWEDEN, FINLAND AND
NEIGHBORING REGIONS. SOUTHERN AUSTRALIA AND NEW ZEALAND SHOULD ALSO
SPOT PERIODS OF ACTIVITY.

SYNOPSIS...

Auroral activity has intensified considerably over the last 6 hours, much more than was expected. The source of this activity is a recurrent disturbance attributed to a solar coronal hole. The phase of the moon will play a limiting factor for observers. Dark sky sites will enhance views, but some of the activity will almost certainly be drowned out by the light of the moon until it reaches the lower horizon in the morning hours. If activity continues at current intensities, activity should become visible over fairly wide areas of the middle latitudes. Activity is already being reported from numerous upper-middle latitude stations. It appears the auroral zones are expanding equatorward, which should enhance the visibility of activity from central middle latitude regions. Activity is not expected to be maintained at this level of intensity for more than about 12 hours, if that. However, sporadic bursts of minor auroral storming are expected over the next couple of days. The next 12 hours will probably provide the best views of activity for those who are favorably situated.

Kent Torell torell@sicom.com 602-483-2867 x40
SICOM 7585 E. Redfield, #202 Scottsdale, AZ 85260

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Laura" <sputnik@imt.net>
Subject: [2680] Response to Bob re: female hams
Message-ID: <199610231831.MAA19488@cu.comp-unltd.com>

Dear Bob:

Thanks for your input, Bob. It's great to have your support. I too have noticed that there are not many YL CW operators. Well, I'll be searching for that QRP Fox, so watch out!! My cw skills have deteriorated from lack of use, but I'm building them back up to get my Extra. I'll start with those Novice/Tech Foxes and work my way up. I was encouraged to get involved in the cw qrp foxhunt from my good friend AA7WT...one of many supportive gentleman hams I know.

CU on the bands, Bob!!

73 de KJ7UN
Laura

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Greg Weinfurtner <weinfurtner@ouvaxa.cats.ohiou.edu>
Subject: [2631] SAQ 17 KHz
Message-ID: <v03007800ae93ae79844e@[132.235.72.11]>

Gang,

No copy on the 17.2 khz station here in southeastern Ohio!
Listened from 0845-0945utc up and down the band...anyone else have any luck?

Greg Weinfurtner AEE BSS
Electronic Design Splst
Ohio University Athens
GO BOBCATS!

weinfurtner@ouvaxa.cats.ohiou.edu
<http://ouvaxa.cats.ohiou.edu/~weinfurtner>

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Dick Schneider <74602.3317@CompuServe.COM>
Subject: [2621] skunked by a fox!
Message-ID: <961023035131_74602.3317_EHH42-2@CompuServe.COM>

Oh we heard him in there, hiding behind a very loud QSO on 7038. Then he hid behind those strange sounding SSB QSOs that splatter the CW band segment. But the fox kept peeking out from behind that QRM. We called the hairy bugger but no luck. Skunked by the fox!

72 Dick AB0CD..

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Jeff Casey <WB5GWB@sprynet.com>
Subject: [2623] Source for RS DSP filters

Message-ID: <199610230435.VAA28966@m7.sprynet.com>

Gang,

A local Radio Shack manager showed up at a hamfest here in Long Island on Sunday bearing a big stack of the closeout DSP audio filters. If anyone is having trouble locating one, he says you can order it from him for \$29.97 plus shipping. His phone number is (516) 537-3334 and his name is Fred.
(The Radio Shack is store # 2729 in Bridgehampton, NY.)

By the time you add shipping and the cost of the phone call, this isn't the best price I've seen, but it's not bad if you've had trouble finding one in your area.

Disclaimer: I have no financial interest in Radio Shack or Tandy Corporation, nor in their suppliers, manufacturers, franchisees, subsidiaries, unions, agents, disgruntled former employees, grunted present employees, or their court-appointed representatives. Come to think of it, I have no financial interest in anything :-)

72,

Jeff

Jeff T. Casey / WB5GWB / Long Island, NY / ARCI ARRL ARS QRP-L
EMPS QS0s=6 STATES(w/c)=6/0 DX=0

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996

From: Scott Bauer <ke3nv@erols.com>

Subject: [2683] still waiting

Message-ID: <199610231958.PAA23041@smtp2.erols.com>

Does anybody know how much longer it will take for the vanity calls to go through? I cant wait to order my new QRP qsl cards.

Scott

.....
Fists 1502, ARCI 8804, G-QRP 8773, Nor-Cal 1094, NE 348, CQC 352

Scott Bauer ke3nv@erols.com

.....

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996

From: jim hale <kj5tf@mctc.com>

Subject: [2643] Super 49er Parts & Plans

Message-ID: <326E4E24.2B47@mctc.com>

Hi all 49er owners. I have tried to list the changes I made to my 49er. After you get yours working with stock parts, make these changes.

- Replace RFC1 with T37-2, 23 turns of #28 wire or similar.
- Replace RFC4 with FT37-43, 9 turns.
- Change C11 and C19 to 0.1pF
C20 to 180pF
R4 to 100 Ohms
- For the new 5 pole output filter you need:
 - one additional 470pF silver mica cap
 - two T37-6, 20 turns of #28 wire
 - one additional 1000pF (102) cap, silver mica (polyester will work)

Remove RFC5 and C18.

Remove the 270pF stock cap C17 and replace it with the new 470pF silver mica cap.

Wrap one lead of each of the two 37-6's together, connect one lead of the 1000pF SM cap to the same joint and solder them together. Connect the other lead of the 1000pF cap to ground, (I used the ant ground hole for that).

Connect the one lead of one toroid (pole 1) to the RFC5 hole closest to the edge of the board.

On the bottom of the board. find the trace where the ant line enters the board. Cut and separate the trace between ant and RFC5, C18.

The last toroid wire then goes down through the ant hole, and the new 470pF cap is installed on the bottom of the board. Connect one cap lead up through the ant hole and the other to ground. Run the ant line from this joint to your antenna fitting.

Done.

I got the info from Bob Kellogg, along with the 380N-8 audio boost mod. Now better audio, and power went from 500MW to 1.26w @ 13v.

Good luck, and pse let me know how it works for you!

72/3'z de Jim

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996

From: "Dan Tayloe-P26412" <Dan_Tayloe-P26412@email.mot.com>
Subject: [2654] Tale of two Foxes
Message-ID: <M27573421.003.qjks3.1.961023154117Z.CC-MAIL*/OU=SATCG/OU=AZBH/
PRMD=MOT/ADMD=MOT/C=US/@MHS>

NY seems to be living up to its reputation as an RF black hole at least here in AZ. I missed the first half of the contest, but was there from 315 to 400 GMT, continuously searching up and down the QRP highways and byways. Although I copied some strong east coast QSOs, I heard *no fox* and *no hounds*. :-)

It seemed such a good night for a fox hunt in the band was fairly quite. I did notice some unusual broad-band digital like noise from about 7035 to 7040. For a signal report, I'd give it a 449. I assumed it was just local, but I have never heard it before. Anyone else hear it?

So NY was a washout here in Az. Oh well.....

However, TX last night was something else. It is so neat to have quite band conditions, decent propagation conditions, and a huge pile up of QRP signals on the Fox.

When I hear something like that, I often wonder what the rest of the cw community makes of bedlam (Hey Joe, listen to this... Wow! What a pileup! Rare DX? No... Hold on... Its just Texas!? Whats so special about *him*????).

I was lucky enough to have my little 2 watt HB 40m rig copied 5 minutes into fray. Fox hunting... What a blast!

- Dan Tayloe, KK7BD, Phoenix, AZ QRP1 # 696

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: [2669] TECHNICAL Dist. Cap.
Message-ID: <199610231810.SAA06206@chuck.dallas.sgi.com>

Gang,

Given a T37-2 toroid with say 20T and
given a T50-2 toroid with say 24T
using #26 or #24 magnetic wire. What
would you say is the distributed capacitance?

Under 1pF? More than 1pF?

Inquiring minds wanna know. We talk about it all the time but now we need a number. Measured would be best. Exactly calculated would be better.

..

: Chuck Adams (K5FO CP-60) WAS 40m/30m/20m=49/49/50
: EMPS QS0s=2 STATES(w/c)=2/0 DX=0
: MO TN

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Luke Enriquez <ecsclfe@lux.latrobe.edu.au>
Subject: [2634] Thermal Characteristics of BJT's
Message-ID: <9610231227.AA20448@lux.latrobe.edu.au>

Howdy,

In General, BJT manufacturers like to see "nice" figures in their data sheets. Sometimes, these figures, especially Max Power Dissipation can be misleading.. Here are a few tips on designing power BJT circuits :

1.) Junction Temperature and Thermal Resistance.

Junction Temp must never exceed its maximum rating.

The following relation can be used :

$$T_j - T_a = \theta_{ja} \times P_d$$

T_j = Temperature of Junction

T_a = Temperature of Ambient (ie : air)

θ_{ja} = Junction to Ambient Thermal Resistance

P_d = Power Dissipation of device.

θ_{ja} is always the limiting factor. It is the sum of

θ_{jc} = Junction to case thermal resistance

θ_{cs} = Case to Sink thermal resistance

θ_{sa} = Sink to Ambient thermal resistance

θ is the greek symbol "Theta".

Remember that the thermal-conduction process is analogous to the

electrical-conduction process, where:

Power Dissipation = Current

Temperature Difference = Voltage

Thermal Resistance = Electrical Resistance

Sometimes its easier to prove a point with an example :

A "BD943" is rated with :

Max Pd of 40 W at a Case Temp up to 25 deg cel.

Max junction temp of 150 deg cel

Junction to ambient thermal resistance of 70 deg cel per watt

So,

$T_{jmax} = 150$ $\theta_{ja} = 70$ Assume max ambient temp of 50 deg cel

$P_d = T_{jmax} - T_{ambient}$

θ_{ja}

$= (150 - 50) / 70 = 1.4 \text{ W}$ THATS RIGHT ONE POINT FOUR WATTS!!

What happened to our 40 W rating? Well , we dont have a heat sink do we! Let try adding one.

Take a very large heat sink, so large in fact that the temperature will never rise above 50 deg cel.

We need some new data. θ_{jc} or the Junction to Case Thermal resistance. This is 3.12 deg cel per watt. The larger the heatsink, the smaller the thermal resistance. If we make the heatsink so large it thermal resistance becomes small enough to ignore. So, can we just assume that θ_{jc} is the limiting factor! No, what about the join between the case and the sink, usually with a washer in between. This "impedes" the flow of heat from the case to the heatsink! It will add to our total thermal resistance.

STOP for one minute, lets reflect on the above :

A transistors power dissipation is limited by the maximum junction temperature it can operate at.

The junction temperature reached during operation is proportional to the power we are trying to dissipate and the ease at which we can get heat away from the junction.

Thermal resistance is often called Junction to Case Thermal Resistance. This is made up of the following components :

Junction to Case Resistance - Usually governed by the layout and size of the device.

Case to Sink Thermal Resistance - Some insulating washers are worse conductors of heat than others. Using a heat transferring compound will lower this resistance.

Sink (Heat Sink) to Ambient (The outside air) Resistance - This is set by the size of the heat sink.

Woops, I was going to give an example.

As I said, if all other thermal resistances are small, our limiting factor is junction to case resistance. For us in this example that 3.12 deg cel per watt.

So, $P_d = (150 - 50) / 3.12 = 32 \text{ Watts}$.

Remember, this is assuming no resistance from case to sink.

Now, we can see that our power dissipation has increased to 32 watts, with an ambient (an air temperature of 50 deg cel). The 40 Watts we looked at, was with an ambient 25 deg cel.

Note : There are other factors which will cause a de-rating of the transistors power dissipation. They are beyond the simplistic model I am using today but if I get enough requests (oh sure....) I might try and print something up.

Hope that helps...although your probably more confused now than before.

Regards,
Luke

--

Luke Enriquez VK3DLE
3rd Year Electronic Engineering

"I only cook with Non-violent
fruit that pulps itself."

Latrobe University, Victoria, Australia.
ecsclfe@lux.latrobe.edu.au

--

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "William C. Robbins" <billrobb@net-link.net>
Subject: [2632] TS-50/Tuner Sold!
Message-ID: <199610231213.IAA18095@serv01.net-link.net>

Title says it all. Thanks to all of those who inquired.

Bill

William C. Robbins Heathkit Collector

billrobb@serv01.net-link.net

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: GARY McCAUGHEY <MAIL4GARY@worldnet.att.net>
Subject: [2707] Vibroplex Bug Sale/Question
Message-ID: <19961024022315.AAA22004@LOCALNAME>

I just picked up some goodies from an estate sale of a silent key. One item that I am not going to use is a real nice Vibroplex Deluxe Bug (chrome base, brass top plate and chrome mechanism). It is in really great condx and has the storage case with it. Serial number is #45846. Here is the question. Is this an old bug. You guys that collect them can tell by the SN. And yes...I want to sell it. I just want to get a fair price where both parties feel like they did ok.

If interested or have info on the age and worth, please send me some email or call me at 803-957-8421 between 7pm and 9pm eastern time. I can also be reached at work at 803-822-5158 between 8am and 4pm eastern.

73

Gary

WA2UAX

QRP-ARCI #8911 QRP-L #593

CW is the REAL THING!

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Charles Cashion <ccashion@spdmail.spd.dsccc.com>
Subject: [2676] Wilderness Radio data
Message-ID: <199610231908.0AA18432@spd.dsccc.com>

Grover wrote (G>)

G>
G> From: Grover <SIXPENCE@worldnet.att.net>
G> Subject: Wilderness Radio E-mail?
G> Does anyone have an E-mail address
G> for Wilderness Radio or Bob Dyer?
G> Thanks.. 72 y Paz Grover KQ4AL
G> <SIXPENCE@worldnet.att.net>
G>

18jul96...

Bob Dyer, KD6VIO (Owner of Wilderness Radio) N6KR,
415-494-3806

Wilderness Radio,
P.O. Box 734,
Los Altos, CA 94023-0734, U.S.A.

72s,
Charles Cashion, W5ISZ, QRP-L#76, ccashion@spd.dsccc.com

```
+ - - - - - +
| Nine out of ten cows agree.....you should eat more chicken. |
| Nine out of ten chickens agree...you should eat more vegetables |
| sun1055!ccashion@uunet.uu.net is * NOT * a valid address!!! |
+ - - - - - +
```

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Grover <SIXPENCE@worldnet.att.net>
Subject: [2673] Wilderness Radio E-mail?
Message-ID: <2.2.16.19961023145544.20f71c6e@postoffice.worldnet.att.net>

Does anyone have an E-mail address for Wilderness Radio or Bob Dyer?
Thanks.. 72 y Paz Grover KQ4AL <SIXPENCE@worldnet.att.net>

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Thomas J. Whalen" <whalen@swcp.com>
Subject: [2698] Re: <KN> addressed station only

Message-ID: <Pine.SUN.3.91.961023172016.12624A-100000@kitsune.swcp.com>

On Wed, 23 Oct 1996, Cecil A Moore wrote:

> I had a "Who's On First" CW QSO last night. I forgot what
> ---. means so I asked in Morse code,
>
> what is the meaning of ---.
>
> The guy answers,
>
> what is the meaning of what?
>
> I tried again - same results. Went and looked it up in a
> book and realized there are some questions that one just
> shouldn't ask in Morse code. :-)
>
> 73, Cecil, W6RCA, OOTC (not speaking for my employer)
>
>

Hi Cecil, I just looked it up in my Radio Amateur's Handbook and it describes ---. as, Addressed station only transmit. Tom WB5QYT

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: okasb@rex.mtv.gtegsc.com (Bob Okas)
Subject: [2699] Re: <KN> addressed station only
Message-ID: <9610232331.AA29859@rex.mtv.gtegsc.com>

Cecil,

I'm still at work and I'm desperately trying to stifle the laughter! I can imagine it must have been funny, at least after the fact.

Bob - N3MBY/6

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Paul Harden <pharden@aoc.nrao.edu>
Subject: [2646] RE: AD811
Message-ID: <199610231524.JAA12721@zia.aoc.nrao.edu>

I checked the recent ED and EDN magazines in our tech library and cannot find the cited 1W xmtr article. Can somebody provide the name of the magazine and date of issue? If it's not too

complicated of a circuit, I'll try loading it as an ASCII schematic and post to the group. (Boy are those fun!).

72, Paul NA5N

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Kevin Muenzler <wb5rue@amsat.org>
Subject: [2688] RE: Female hams
Message-ID: <01IAZKC1ZE6SBHBEMF@ARWEN.UTHSCSA.EDU>

On Wednesday, October 23, 1996 11:57 AM, Bob Tellefsen-CNSE97[SMTP:Bob_Tellefsen-CNSE97@email.mot.com] wrote:

>I agree the ladies seem to be a minority. There may be many more out there than
>we know about. We just don't hear from or about them.

I can see it now! Affirmative Action for Amateur Radio! ;)

This sort of stuff went on for weeks on another list about the lack of "minorities" or "people of color" in Amateur Radio. There were accusations of racism in the ARRL because of the lack of minorities in their articles. This stuff is total BS! The ONLY requirement for entrance into Amateur Radio (other than you must pass the tests) is interest. That's it! Yes, it is a fact that in the past there were very few women in Amateur Radio but this is rapidly changing. The ONLY reason for this low percentage is lack of interest. That's it, no other reason, nadda.

>Anyway, we are glad to have them.

>72, Bob N6WG

Absolutely we are glad to have them and anyone else interested who is willing to pass the test.

Kevin, WB5RUE

I am Voltohm of Borg! Resistance is E/I, Power is EI,
you will be attenuated!

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Dana H. Myers" <myers@bigboy.West.Sun.COM>
Subject: [2690] RE: Female hams
Message-ID: <Roam.3.0.1.846106080.28942.myers@bigboy>

Kevin wrote:

> On Wednesday, October 23, 1996 11:57 AM, Bob
> Tellefsen-CNSE97[SMTP:Bob_Tellefsen-CNSE97@email.mot.com] wrote: >I agree
> the ladies seem to be a minority. There may be many more out there than
> >we know about. We just don't hear from or about them.
>
> I can see it now! Affirmative Action for Amateur Radio! ;)
>
> This sort of stuff went on for weeks on another list about the lack of
> "minorities" or "people of color" in Amateur Radio. There were accusations
> of racism in the ARRL because of the lack of minorities in their articles.
> This stuff is total BS! The ONLY requirement for entrance into Amateur
> Radio (other than you must pass the tests) is interest. That's it!
> Yes, it is a fact that in the past there were very few women in Amateur
> Radio but this is rapidly changing. The ONLY reason for this low
> percentage is lack of interest. That's it, no other reason, nadda.

While you yourself may not have a problem with the idea of women in amateur radio, I've certainly seen evidence of sexism in radio amateurs. Claiming it doesn't exist won't make it go away. The sexism is often unintentional, but it exists.

Dana KK6JQ
Dana@Source.Net

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Kevin Muenzler <wb5rue@amsat.org>
Subject: [2691] RE: Female hams
Message-ID: <01IAZM38CI5QBHBEMF@ARWEN.UTHSCSA.EDU>

On Wednesday, October 23, 1996 9:28 AM, Dana H.
Myers[SMTP:myers@bigboy.West.Sun.COM] wrote:

>Kevin wrote:
>
>> On Wednesday, October 23, 1996 11:57 AM, Bob
>> Tellefsen-CNSE97[SMTP:Bob_Tellefsen-CNSE97@email.mot.com] wrote: >I agree
>> the ladies seem to be a minority. There may be many more out there than
>> >we know about. We just don't hear from or about them.
>>
>> I can see it now! Affirmative Action for Amateur Radio! ;)
>>
>> This sort of stuff went on for weeks on another list about the lack of
>> "minorities" or "people of color" in Amateur Radio. There were accusations
>> of racism in the ARRL because of the lack of minorities in their articles.
>> This stuff is total BS! The ONLY requirement for entrance into Amateur

>> Radio (other than you must pass the tests) is interest. That's it!
>> Yes, it is a fact that in the past there were very few women in Amateur
>> Radio but this is rapidly changing. The ONLY reason for this low
>> percentage is lack of interest. That's it, no other reason, nadda.

>
>While you yourself may not have a problem with the idea of women
>in amateur radio, I've certainly seen evidence of sexism in radio
>amateurs. Claiming it doesn't exist won't make it go away. The
>sexism is often unintentional, but it exists.

>
>Dana KK6JQ
>Dana@Source.Net
>

Yes, this is also true but the sexism that I mean is the sexism that prevents women from entering Amateur Radio. I feel that there really is none. Now, once in I can see it as a problem.

Kevin

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: emaaaro@pacbell.net
Subject: [2663] Re: Female hams-Yes!
Message-ID: <326E3D45.7E83@pacbell.net>

laura halliday wrote:

>
> Hmmm...at a large number of ham events I tend to be the only
> woman there, and even if there are other women there they are
> almost invariably non-technical no-code Basic hams who tagged
> along with their husbands or boyfriends.
>
> I find many ham clubs are populated by an older generation of
> men who simply don't socialize with women. Never have, never
> will, and are baffled at the concept. Ham radio is a men's
> social club for them, and they can't see it any other way.
> The younger generation tend to be somewhat better, but, as
> always, there can be exceptions on both sides.
>
> I vividly remember the Radio Amateurs of Canada convention in
> 1994, where people seemed totally weirded out at my presence
> and attempts at conversation produced blank stares. And the
> AMSAT convention last year where I had a ball. What a contrast!
>
> I don't recall seeing a non-fiction ham radio book written
> by a woman, and can only think of three women who are involved

> with ham magazines for anything other than those insulting YL
> columns. Two of them are in England (G8IYA and G4JKS). The
> third is WB2MGP.
>
> Yes, we need contributions, but we also need a climate of
> acceptance. I get lots of email on other ham radio lists
> that begin with salutations like "Gentlemen". The president
> of the local ham club has never once (as far as I can tell)
> acknowledged in his choice of pronouns that a ham might be
> a woman. Even on this list we have ahem...people suggesting
> withholding property (cars, lipstick, etc.) from their wives
> as a means of attaining an end.
>
> Puke. It's totally inappropriate. And it's *not* funny.
>
> P.S. Thanks, Paulette. Keep up the good work.
>
> Laura Halliday VE7LDH "C'est une femme mutine, assez
> lhalliday@creo.com elegante, grave et legere, ayant le
> ve7ldh@amsat.org sens du confort et du plaisir
> Locator: CN89mg en tout." - C. Deneuve

Laura:

Sadly, I must agree with all of your comments.
However, every club I've joined, usually had one to several very active
yl/xyl members and officers. These clubs were for bicycles, computers,
photography and of course, amateur radio. This must be because we're
enlightened here in Sacramento, CA. I havent noticed similar involvement
in other areas of the US and overseas that I've visited.
I am currently a Director in the North Hills Radio Club (NHRC), THE BEST
AMATEUR RADIO CLUB IN THE WORLD. Please feel free to check out our web
page at:
<http://www.ns.net/~NHRC>
I'm sure you'll enjoy it.
Oh yes, the rest of the qrp-l group is invited also.

88s, 72s/73s, emaaro

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "John Mouw" <mouw@innet.com>
Subject: [2697] Re: Female hams-Yes!
Message-ID: <199610232329.TAA22213@lucky.innet.com>

=====
John-KD4GIK Dade City, Florida

Home of Sun, Fun, & Guns!

=====

> From: laura halliday <lhalliday@creo.bc.ca>
> To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
> Subject: Re: Female hams-Yes!
> Date: Tuesday, October 22, 1996 8:34 PM
>
> Hmmm...at a large number of ham events I tend to be the only
> woman there, and even if there are other women there they are
> almost invariably non-technical no-code Basic hams who tagged
> along with their husbands or boyfriends.
>
> I find many ham clubs are populated by an older generation of
> men who simply don't socialize with women. Never have, never
> will, and are baffled at the concept. Ham radio is a men's
> social club for them, and they can't see it any other way.
> The younger generation tend to be somewhat better, but, as
> always, there can be exceptions on both sides.
>
> I vividly remember the Radio Amateurs of Canada convention in
> 1994, where people seemed totally weirded out at my presence
> and attempts at conversation produced blank stares. And the
> AMSAT convention last year where I had a ball. What a contrast!
>
> I don't recall seeing a non-fiction ham radio book written
> by a woman, and can only think of three women who are involved
> with ham magazines for anything other than those insulting YL
> columns. Two of them are in England (G8IYA and G4JKS). The
> third is WB2MGP.
>
> Yes, we need contributions, but we also need a climate of
> acceptance. I get lots of email on other ham radio lists
> that begin with salutations like "Gentlemen". The president
> of the local ham club has never once (as far as I can tell)
> acknowledged in his choice of pronouns that a ham might be
> a woman. Even on this list we have ahem...people suggesting
> withholding property (cars, lipstick, etc.) from their wives
> as a means of attaining an end.
>
> Puke. It's totally inappropriate. And it's *not* funny.
>
> P.S. Thanks, Paulette. Keep up the good work.
>
> Laura Halliday VE7LDH "C'est une femme mutine, assez
> lhalliday@creo.com elegante, grave et legere, ayant le
> ve7ldh@amsat.org sens du confort et du plaisir

> Locator: CN89mg

en tout." - C. Deneuve

Great Comments Paulette. You're absolutely right. Ham Radio is at present a white Old Farts Society and if they could, they would take it to the grave. But as long as people like you hang in there it will continue to be a great hobby. I am proud of our local radio club (East Pasco Amateur Radio Society) and the effort we have made to make all members feel welcome. Our past president and current vice president is my wife KD4NLE. We have a very significant female population as well as other minorities. Maybe it has to do with living in Florida who knows? But I've noticed the same things you have in meetings as you have and it's important to say "HEY! I am not a potted plant" I have a brain and I have something to contribute. When is the last time some of your old ham buddies ever nurtured a teenager? I remember about a month or so ago when I showed a school friend of my son, "black if that matters" the fun I was having on 75 meter phone. He talked to some of the crew I work routinely, and now he's studying for his ticket. All it took was 5 minutes and he was hooked. Have a Great Day

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996

From: "Dean Marzocca" <n2tnn@ifu.net>

Subject: [2701] Re: Female hams-Yes!

Message-ID: <199610232359.TAA11360@mail.ifu.net>

Laura,

My favorite aspect of using cw is the fact that I can't hear the other ops voice. I don't want to be prejudiced by the tone, twang, drawl, speed or pitch of their voice. I want to make a radio contact with another ham. I don't care about their size, shape, color, religion or anything else someone else might have problem with.

I have the same problem that you have when it comes to meeting other hams. Looks are deceiving to say the least. I am not taken seriously by my current ham club and I think it's because I don't look like them or because I don't socialize with them as much as I should. We have different "off ham" time interests. One of my favorite non ham activity is to pull up the old jock strap every Wednesday night and play some hardball. Just like on tv and the fastball is still about 75 miles per hour. You should see 'em bail out when the curveball comes a bit inside. (see, there I go talking about non-ham stuff, shame on me!!) As a real example. I stopped at a new ham club meeting last night. I got there late because I was working. Most of the members had left but the president, I met him at a VE testing, was talking to another club member about travel plans and I assumed it was Dayton as the destination. I asked where they were going and he answered, "Dayton, every ham knows about Dayton, and every ham should go to Dayton if they are really a ham". Now that puts the pressure on to prove or not to prove if I am a real ham. What does that mean anyway, ---REAL HAM---

The girls that my daughter plays with on the high school soccer team refer to each other as guys. As in, "come on guys, lets get going". So I didn't think it being offensive when I start a post here with "Hey guys". No way do I feel that is offensive to anyone and it shouldn't be taken as such. It is very neutral in my book. I don't aim my requests or replies to any one gender be it female, male, bi, or any other combination of the above. Where I come from it don't matter one bit. I just want an answer. Maybe your just too buffered up in that VE7 land, too cold maybe!

You know, I never changed my call when I upgraded and one reason was not to intimidate the novice/techs operating in the novice bands. Hearing a response to a CQ by a 2x1 or 2x2 got me a bit nervous when I was getting started. Notice I didn't say learning, I am always learning. This is one of the finest places to learn on the qrp-l list. So don't get all gussied up about not being recognised at a club meeting or such. Be happy you are a part of this group and contribute to the world as you would want everone else to do. At least, that is what I try to do.

Point is that all of us feel as outsiders some time or another. If you don't like the conversation, walk away. Don't like the meeting, get up and walk out. You are never going to be an old, white, male fart so you will never have to act like those guys are acting now. Like Chuck says, "been there, done that". I get the same thing but I am on their side, I can imagine how it is on your side. I agree that you can't change the system, just make a new one, a better one.

Come to thing about it, I might even join this new club just so I can find out about this Dayton thing...

Dean

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Joe Gervais <vole@primenet.com>
Subject: [2703] Re: Female hams-Yes!
Message-ID: <199610240048.RAA02748@primenet.com>

Howdy,

Kevin (WB5RUE) wrote:

>

> Yes, this is also true but the sexism that I mean is the sexism that
> prevents women from entering Amateur Radio. I feel that there really
> is none. Now, once in I can see it as a problem.

>From what I've seen, the problem (greatly varied by region)
clearly isn't whether or not women *can* become licensed hams.
I work with several who could walk in on any given day and
pass the theory from Novice to Extra without breaking a sweat.

The problem in some areas seems to be why would they *want* to? Ours is a social hobby after all. If all you hear on the local repeater is disparaging talk and off-color jokes, are these people you'd want to hang out with? Sure, there was a time when you could turn on your 2m rig during a grade school demonstration and let the kids listen. How many of us would feel comfortable trying that these days? Not as many as we'd hope, I fear. And imagine how welcome Laura must've felt at the conference where she was treated like an alien invader. Rare circumstance? I sure hope so! But it happened. Kind of odd for a hobby built around communicating and socializing.

Kind of depressing to think that a few poor operators are turning off major portions of the population. Which is why I wish we could get more attention on QRP. Polite, skilled, interesting people. Pacificon and the Fox Hunts are perfect examples of this.

Just something to keep in mind.

Cheers de KC7NEV,

-Joe, vole@primenet.com, AZ ScQRPions

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Gary Surrency <gsurrenc@ix.netcom.com>
Subject: [2626] Re: FOX
Message-ID: <326DACFF.1956@ix.netcom.com>

Ok, I finally caught a fox tonight. He was surfing in on the QSB waves, so I had to time it just right. Tim, WA5VQK was almost S9 hear on the peaks, and there was a whole lot of hounds (sounding like bees) zeroing in on him before and after I caught him. I got lucky and just happened to hear him when conditions were momentarily good.

Most fun I've had recently for such a quick exchange. I think he copied me as AB5MY, but didn't want to tie up the freq too long to ascertain that. Anyway, everything else was a QSL. The Latin SSB QRM was here.

Thanks Tim, for a good job and good ears.

Now, where is the QRP activity on 80m? I listen frequently, but haven't heard anything but Spanish QRM and QRN.

--

Gary, AB7MY QRP-L #571 Chandler, AZ (near Phoenix)Grid Square DM43BH
Fox=1 EMPS=0

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: lve1@inel.gov (Larry V East)
Subject: [2660] Re: FOX - Prelim Results 10/22
Message-ID: <2.2.16.19961023160924.1c378f9e@eloi>

>
>Larry - W1HUE - how do you get every other dit to be on a different frequency?
>That really sounded .. different! It did work tho.... <:-)
>
Hmmm.... Well, I was using my trusty(?) old FT-301 (at 4.5W +/- out) 'cuz
the QRP+ is spread out all over my work bench so that I can document all the
mods! The '301 was having a problem with the RIT -- I thought it only
affected receive, but obviously it was affecting transmit as well! Guess I
better tear into it ... or maybe I have found a new emission type: "spread
spectrum CW"!!

By the way -- QSB was really awesome; you would go from S6 down to the noise
level and then back again within the same transmission!

72, Larry W1HUE/7

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Joe Gervais <vole@primenet.com>
Subject: [2661] Re: FOX - Prelim Results 10/22
Message-ID: <199610231623.JAA10098@primenet.com>

Tim (The TX Fox) wrote:

>
> Larry - W1HUE - how do you get every other dit to be on a different
> frequency? That really sounded .. different! It did work tho.... <:-)

I *knew* it was only a matter of time before someone did
a Spread Spectrum mod to their 49-er.... :-)

Cheers de KC7NEV,

-Joe, vole@primenet.com, AZ ScQRPions

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: PDouglas12@aol.com
Subject: [2652] Re: Fox: Caught him hiding under couple of QRO lids
Message-ID: <961023114014_549535392@emout20.mail.aol.com>

OK, Chuck's right. I certainly don't mean anyone should send nasty emails to the two QRO ops from last night. Chuck is a nicer guy than I am. I admit it. That's why so many people like him. And he is dead right. It is not good for our reputations as the top ops if we holler bad words at other hams who are just doing their things too.

So, I remain properly chastised, but slightly unrepentant! They are lids, you know. Hi Chuck. And you do owe us a NY visit still. And as you know, since you didn't see fit to put me on the Fox list this year, you sleep on the floor.

72,

Preston WJ2V

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Kevin Muenzler <muenzlerk@uthscsa.edu>
Subject: [2647] RE: JUNO Limits & Digest Size
Message-ID: <01BBC0CC.9BC28AE0@muenzlerk.uthscsa.edu>

On Wednesday, October 23, 1996 6:14 AM, d.nordquest@juno.com wrote:
>Thanks, Jim! That will help alot.! I think the Juno limit may be a
>little less than 64K.
>Someone on the list told me, but I've lost the info. Maybe they can
>respond.

> Dave KE9ED
>
>

That's right, it is 64K less some overhead. It's somewhere around 60K.
Kevin

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Jim Eshleman <lujce@hooch.CC.Lehigh.EDU>
Subject: [2655] Re: JUNO Limits & Digest Size
Message-ID: <96Oct23.114653-0400edt.65735-18193+380@hooch.CC.Lehigh.EDU>

> Thanks, Jim! That will help alot.! I think the Juno limit may be a
> little less than 64K.

The bounces I see say 64Kb, so I set the maximum size of the digest pieces to 60000 bytes, which might end up slightly more due to breaking the pieces on line boundaries, headers, etc. I think they'll weigh-in well under the limit, but let me know if not.

BTW, for the uninitiated, the daily digest currently goes out around 0010 local (Eastern) time. That time will be changing to 0700 any day now, which will be 0000UTC when we go to EST...I think... :-) That should allow any last minute changes in Fox schedules, etc. to get out to digested QRP-L'ers.

73

Jim N3VXI n3vxi@Lehigh.EDU
Tech+ 40M QSOs=1 STATES(w/c)=1/0 DX=0

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Laura" <sputnik@imt.net>
Subject: [2675] Re: Laura Halliday's letter
Message-ID: <199610231805.MAA17616@cu.comp-unltd.com>

I am not sure why this letter is posted to the qrp group, except that Laura halliday may be a qrp-l list member, however, I could not help but respond to her well-written letter.

Laura:

I can appreciate your comments regarding the lack of YL's at ham events and, of course, on the air. I am an Advanced Class licensee YL and enjoy many different modes of operation in Amateur Radio. I am also a firefighter, Deputy Fire Chief, and amateur radio volunteer examiner. I am thrilled to learn that I am not the only YL who finds the YL columns in the ham publications insulting.

HOWEVER, I am very happy at my acceptance by the ham community here in Bozeman, Montana. The Gallatin Ham Radio Club (GHRC) elected me President of their club this year and I have been put in responsible positions many times. I am treated as an equal (as I should be). I have never felt out of place or "different" from the other members. But my attempts to incorporate more involvement from other women operators in the club have failed. There are some women that are very involved and "on the air". But I can count them on one hand. Most of the women amateur operators I know are only licensed because their husbands wanted them to be.

I really think that this is changing, though, Laura. Women are seeing other women, like ourselves, being a part of the ham community and they are beginning to realize that there is a place for them here. Women's equality in the ham community, in my experience, is progressing much more quickly than in the workplace. Like any minority group, we have to struggle for equality and never give up the fight. The more visible we become, the less easily we are overlooked.

If we maintain an "on the air" presence we are bound to capture the attention of other women who will want to join us. I wish all women could have the wonderful experience I have had in our club and I believe someday they will.

As for greetings and salutations directed toward men (ie: Dear Sir, Gentlemen...etc) I ALWAYS return those letters to the person who wrote them and send the a polite response that the letter must have been sent to me in error, since I am neither a Sir nor a Gentlemen. They usually get the point.

Thanks to all the men out there who have made it easier for women to enter and contribute to amateur radio. I believe there is only a small percentage of men that are opposed to our presence. The negative response we experience is usually unfounded and inspired by small minds. Thank you, Laura, for writing about it.

73 & 33 de KJ7UN

Laura Marino Lubner
sputnik@imt.net

PS: After a few years, I finally talked my husband into getting his no code tech license this spring, but he rarely gets on the air. Talk about role reversal!!

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Dana H. Myers" <myers@bigboy.West.Sun.COM>
Subject: [2667] Re: Mystery Guest
Message-ID: <Roam.3.0.1.846091476.18.myers@bigboy>

> Mystery Guest wrote (mg>)
> mg>
> mg> I am currently a Director in the North Hills Radio Club (NHRC), THE
> BEST
> mg> AMATEUR RADIO CLUB IN THE WORLD. Please feel free to check out our web
> mg> page at:

> mg> http://www.ns.net/~NHRC
> mg> I'm sure you'll enjoy it.
> mg> Oh yes, the rest of the qrp-l group is invited also.
> mg>
> mg> 88s, 72s/73s, emaaro
> mg>
>
> So, emarro (aka mg), are you allowed to reveal your
> true identity?

There's really nothing mysterious about emaaro - I had a look at the NHRC web page, where the board member e-mail addresses are given. Apparently emaaro is also known as Earl, AB6CN.

Dana

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: bhopkins@polarnet.com (Bruce Hopkins - KL7JAF)
Subject: [2693] Re: propagation / aurora
Message-ID: <v01540b00ae9446f43ceb@[204.119.24.187]>

Hi Gang...

I guess that this is kind of a mixture of FYBO / Aurora / Propagation...
I can attest to the fact that the auroral activity is at a high level... You see we live directly under it... Our propagation has been in the dumper for quite a spell now... Local signals even on 80/40 come from the bottom of a barrel with marbles moving about... Our nightly temps have gone to -22f on occasion with over a foot of snow on the ground... Oh well, almost cool enough to start building antennas, and the Aurora has been giving us some of the most spectacular displays of my 20 year insanity in this wonderful "Ice Box"

72/73/oo's from the "Frozen Chosen"

Bruce & Lin
KL7JAF/WL7BHT

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: Dave.Ackrill@westwood45.powergen.co.uk
Subject: [2628] RE: qrp/m @ pacificon
Message-ID: <961023090416Z*/G=Dave/S=Ackrill/O=westwood45/PRMD=POWERGEN/
ADMD=CWMAIL/C=GB/@MHS>

Dear Phil and all at QRP-L,

I too had an IC-202 once upon a time. Great little rigs, I used to work stations via Aurora using it without an amplifier straight into an old 8 element yagi when I first moved up to Yorkshire! Wish that I had kept it now!

From here I could even listen to European stations working aurora just on the quarter wave whip of an FT-290R. So I guess that the 8 element made the signals QRO HI!!

I occasionally look around the Bring and Buy stalls for the IC-202, and its 70cm equivalent the IC-402, but owners seem hold on to them or they have been put away in the loft.

Wonder how many others are interested in VHF QRP? I used to use CW all the time on 2M and 6M, up until recently I only tended to use about 3W as well (even now my "QRO" is only about 25 Watts). 6M was very good for QRP CW, Auroras were easier to catch than on 2M and the Es seasons usually allow some DXing with lower power. Mind you the "life is too short for QRP" brigade are very active on VHF, and any newcomers usually get "told" that they MUST use QRO.....

Cheers - Dave (G0DJA)

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: John E Hunt <johnh@mdhost.cse.tek.com>
Subject: [2692] Re: REDUCED DIGEST SIZE?
Message-ID: <199610232148.0AA15387@mbddoc8.cse.tek.com>

I could also use some help with the digest.
Can the QRP-L DIGEST be sorted by Subject: before being sent?
It would help me speed read the messages.

73,

John K7SII

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: JEVERHART@cayman.litc.lockheed.com
Subject: [2639] RE: SAQ 17 KHz
Message-ID: <961023100439.20802e08@cayman.vf.mmc.com>

Greg, you wrote:

>Gang,
> No copy on the 17.2 khz station here in southeastern Ohio!
>Listened from 0845-0945utc up and down the band...anyone else have any luck?
>
>

No joy here in NJ, either! Nor did I hear anything on Monday am at the scheduled test time.

BTW, *did* manage to hear two old reliable OMEGA stations at (I believe) 13.0 and 13.6 kHz. They are markers for me to tell whether or not my receiver/antenna is working. Every time I decide to listen in that freq range (every 2-3 years :-) I have a new set up so I need markers!

72/73,

Joe E., N2CX

work: jeverhart@cayman.litc.lockheed.com
home: n2cx@voicenet.com

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "David D. Meacham" <ddm@datatamers.com>
Subject: [2708] Re: SSB Transceiver Wanted
Message-ID: <Pine.LNX.3.91.961023193502.14910A-100000@dt1.datatamers.com>

Mike, QRPP & SPRAT have had the plans for the Epiphyte-2, a 5W SSB rig

for 75 meters. Also, NorCal sold 150 or 250 (can't remember which) of the Cascade kits (20/75 SSB, two-bander via plug-in modules). I still see them now & then on this reflector selling as unbuilt kits! One was just a couple of days ago. Hope this helps.
72, Dave, W6EMD

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: PChristensen@Continental.com
Subject: [2684] RE: still waiting
Message-ID:
<c=US%a=_%p=Continental%1=SEEXCH01-961023200753Z-4423@neexch01.continental.com>

Let me guess.....W3QRP?

-Paul

>-----
>From: Scott Bauer[SMTP:ke3nv@erols.com]
>Sent: Wednesday, October 23, 1996 3:58 PM
>To: Low Power Amateur Radio Discussion
>Subject: still waiting
>
> Does anybody know how much longer it will take for the vanity
>calls to go through? I cant wait to order my new QRP qsl cards.
>
>Scott
>:.....
>Fists 1502, ARCI 8804, G-QRP 8773, Nor-Cal 1094, NE 348, CQC 352
>
> Scott Bauer ke3nv@erols.com
>
>:.....
>
>
>
>
>
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>
>

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Warren E. Lewis" <saswel@unx.sas.com>
Subject: [2656] Re: Sweepstakes CW November 1996
Message-ID: <199610231553.AA28203@cardamom.unx.sas.com>

>
> Great tips from Chuck on the November Sweepstakes -- my second favorite ham
> activity (first best is the V/UHF contests.) A few comments though:

Great tips from Patrick and Chuck on the November Sweeps!!!
And now for a few additional words from the peanut gallery!!

> >[...] In summary [...]
> >4. Have fun.
>
> The best of all advice. If it stops being fun, go have a soda and come back
> later. If you get angry about someone's behavior, spin the dial. If despite
> your best efforts you only get 10 CW QSO's in the log -- plan to get 20 next
> time (and also work the phone weekend.)

I think this is the most important thing!! I will echo what Patrick
said: If you stop having fun, Get away from the radio for a while and
come back later. Trust me it will get easier when you come back. I have
found that the first couple of hours are the most difficult for me. It
is hard for me to get into the contest mindset. And don't get upset
if somebody doesn't ever hear you and calls CQ in your face.

Sweepstakes is great for increasing the code speed and finding
folks sending slower. In all of the bands QST announced certain
portions for use as slow speed portions. My second time in the
Sweeps my code speed was still in the 10-13wpm range so I spent most
of my time in the slow speed sections until I felt comfortable enough
to move farther down the band. It really is a rush to see your
self copying 20-25wpm contest exchanges with some reliability on
Sunday afternoon!! (By the way, I took and passed my 20 wpm element
the next weekend after Sweepstakes. No better way to increase your
code speed)

Another important thing is to set some goals and make out a plan
on when you are going to operate and when you are going to work
what bands. For example, the first time I entered Sweepstakes I
set the goal of making 50 contacts (I had my Tech+ at the time).
The next year I set out to make 100 and then last year I set out
to make 200. Each time I have been successful at making my goal,
mainly because I pushed myself and set reasonable expectations.
Concerning the plan, take some time and read and study about

propagation, then plan when you want to move to what band. For example, you don't want to be looking for contacts on 80 in the middle of the day and yet you don't want to wait to long to go to 80 in the evening. And you also don't want to spend a lot of time on bands that may not be very fruitful, depending on your antenna situation. 10M and 15M may not be bands to spend a lot of time on if you don't have a beam or two or three. But, you do not want to count them out completely either as you may get a great opening to the Pacific or to the Caribbean for some of the elusive sections. A good way to keep an eye on things during the contest is to have another radio available that you can use to be listening in on 10 or 15M so you can be ready for the opening if one happens.

Most of the major QRO ops use two radios. One is the "Run" radio and the other is called the "Mult" radio. What they do is have the headphone wired such that the "run" radio audio is in one ear and the mult radio audio is in the other. So while "running" stations on one band they are looking for multipliers on another. From what I understand it is very effective and they are able to get 10-15 more contacts per hour with this operation. As you can imagine it is a difficult skill to learn and is only effective if you can hold a run frequency.

Sorrry about rambling on like this, but, I just want to encourage all of you to get on and operate during the Sweeps. You will not regret it!!

cheers es 72/73 - Warren

--

Warren E. Lewis
Technical Support Division
SAS Institute Inc.
Cary, NC

saswel@unx.sas.com
(919) 677-8001 x6542
PP-ASEL
DOD#0021

AD4ZE QRP-L#78

From owner-qrp-l@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "John A. Evans - N3Q00" <jaevans@cos.cst.titan.com>
Subject: [2670] Re: TECHNICAL Dist. Cap.
Message-ID: <199610231816.0AA165396@nss2.CC.Lehigh.EDU>

> What
> would you say is the distributed capacitance?
> Under 1pF? More than 1pF?

> Inquiring minds wanna know. We talk about it

> all the time but now we need a number. Measured
> would be best. Exactly calculated would be better.

Chuck is at it again - always in search of better than best &^)

72, n3qoo
john

John A. Evans Chief System Administrator
Office: (719) 528-1800 Titan Client/Server Technologies
Fax: (719) 528-1888 1115 Elkton Dr, Suite 200
email: jaevans@cos.cst.titan.com Colorado Springs, CO 80907-3535

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: "Dana H. Myers" <myers@bigboy.West.Sun.COM>
Subject: [2671] Re: TECHNICAL Dist. Cap.
Message-ID: <Roam.3.0.1.846094609.17319.myers@bigboy>

>
> Gang,
>
> Given a T37-2 toroid with say 20T and
> given a T50-2 toroid with say 24T
> using #26 or #24 magnetic wire. What
> would you say is the distributed capacitance?
> Under 1pF? More than 1pF?
>
> Inquiring minds wanna know. We talk about it
> all the time but now we need a number. Measured
> would be best. Exactly calculated would be better.

Anyone have a network analyzer to measure the self-resonant
frequencies of these inductors? That, and the inductance
measured at a very low frequency, would be all we need if I'm
not mistaken.

I'd guess the value is quite small, and it will vary depending
on winding style.

Dana KK6JQ
Dana@Source.Net

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: JEVERHART@cayman.litc.lockheed.com
Subject: [2674] RE: TECHNICAL Dist. Cap.
Message-ID: <961023145550.20802e08@cayman.vf.mmc.com>

Chuck, you wrote:

>Gang,
>
>Given a T37-2 toroid with say 20T and
>given a T50-2 toroid with say 24T
>using #26 or #24 magnetic wire. What
>would you say is the distributed capacitance?
>Under 1pF? More than 1pF?
>
>Inquiring minds wanna know. We talk about it
>all the time but now we need a number. Measured
>would be best. Exactly calculated would be better.

Don't know how to accurately calculate it and as pointed out by others, the distributed C depends on how it's wound. Dealing from memory, I'd say that the distributed C would be on the order of 5 to 10 pf.

You *can* measure and do some calculations with either an RX bridge or a good old Boonton Q meter by noting the apparent L at different frequencies and calculating the delta C. There was also an article in 73 several years back (and I'm sure elsewhere) for an L meter that used the test L in an oscillator with two known switchable capacitors. By noting the oscillator frequency shift with the known C values, you could calculate the parallel C of the inductor.

72/73,

Joe E., N2CX

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: torell@sicom.com (Kent Torell)
Subject: [2686] Re: TECHNICAL Dist. Cap.
Message-ID: <v02130504ae941d6edc5f@[192.91.202.41]>

Terman has a nice discussion about distributed capacitance of coils on page 84 of the Radio Engineers' Handbook, 1943. If you ever find a copy of this, GET IT. It has lots of basic physics stuff on C and L that isn't printed anymore. Quoting:

The voltage difference that exists between different parts of a coil produces an electrostatic field in the air and in the dielectric near the coil. The effect of the resulting storage of electrostatic energy upon the coil behavior is to a good approximation equivalent to the effect produced by a small capacity shunted across the terminals of the coil. Such a hypothetical shunting capacity is termed the distributed capacity of the coil. ...

...

The distributed capacity of an isolated single-layer solenoid is approximately proportional to the diameter of the coil and decreases slowly with increasing length. The distributed capacity is largely independent of the number of turns if there are a considerable number of turns and these are not too closely spaced.

He goes on to talk about multilayer coils, and how to measure the effect, but doesn't give any absolute numbers. The thing that strikes me, is that the mechanism is different than I anticipated (inter-winding capacitance) so it is minimized in a different way. If it is indeed proportional to the diameter of the coil, then the small coils we wind are best for this. This diameter would be the cross-section of a torroid form, not the outside diameter of the torroid form itself. It also suggests that very high frequency coils will have to be physically small to keep this distributed capacity effect low.

I'll be interested to see some numbers!

Another inquiring mind.....
ab7oa

Kent Torell torell@sicom.com 602-483-2867 x40
SICOM 7585 E. Redfield, #202 Scottsdale, AZ 85260

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: adams@chuck.dallas.sgi.com (chuck adams)
Subject: [2689] Re: TECHNICAL Dist. Cap.
Message-ID: <199610232116.VAA06719@chuck.dallas.sgi.com>

Kent,

Thanks for the posting.

Physically, what you quote seems logical.

1. Increased diameter yields greater C(d) (my notation for distributed capacitance) considering all other factors equal. Think of the increased diameter yielding more area thus more capacitance.
2. Increasing turns lowers C(d), again logical because the C(d) is made up of a large number of series C's and more turns gives more C's and for series C's the total goes down.

Now the reason this discussion came up in the first place is that I'm modeling Chebyshev Low Pass Filters using Spice on a workstation. I have done all the filters in all the kits and all the books from DeMaw, ARRL, RSGB, and a cast of thousands. Well, it seems that way.

So just for the heck of it I added a parallel C of 1 to 10pF across the coils to see what the effect would be, let's call it the K5FO Effect :-). Low and behold there was little effect at the low freqs but the attenuation levels went up 1 or more dB at the second and higher harmonics. This was unexpected but desireable showing that C(d) isn't always a bad thing.

I just started playing with this so some time will elapse before film at 11. Large article for QRPp if I can meet Doug's deadline for the January issue.

I'll bust the bushes for the fox and the book. Maybe even find a Snipe.

dit dit

: Chuck Adams (K5FO CP-60) WAS 40m/30m/20m=49/49/50
: EMPS QS0s=2 STATES(w/c)=2/0 DX=0
: MO TN

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996
From: d.nordquest@juno.com
Subject: [2696] Re: TECHNICAL Dist. Cap.
Message-ID: <19961023.163013.4783.2.d.nordquest@juno.com>

Anyone have the source for that 73 Magazine article? In the January and November 1981 issues of QST, there's a simple L-meter circuit which I built fairly recently.

I think it works ok for very small coils, but I get unexpected values for the light blue, tear-drop-shaped type used in TV's. I wondered about switching a series cap but never tried it. Article sounds very interesting.

By the way, the L-meter triggered the frequency counter better without

the gate to ground 1N914.

Dave KE9ED

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996

From: FACMSA@facilities.buffalo.edu (Adams, Mark S.)

Subject: [2637] RE: Which ferrite type for 2-30 MHz

Message-ID: <1996Oct23.094700.1483.25295@facilities.buffalo.edu>

OK David and Gang,

I know that my T106-2 torroids will work well for 2-30MHz. But I cannot find any info on how to wind 4:1 and 1:1 baluns with them! I have the latest Antenna Book and the latest Amidon Catalog and am at a loss.

The 4:1 balun is for a Heathkit tuner that came to me lacking a balun and the 1:1 (preferably current type) is for the feedpoint of the neat dual coax trap 80/40/17/10 dipole from QST earlier this year. That is the one where the trap is not a trap but makes the antenna the right length to use with coax feed on multiple bands. (The location I have for this antenna will not allow easy twinlead feed without lots of sharp bends, a run near some power lines and finally a run up a 10' aluminum pole.)

I know how to wind torroids, single, bi- and trifilar types but do not know wire size, # of turns, etc. Of course this is all for 5 watts and less. No QRO gear at my QTH.

Thanks and 72,

Mark N2VPK Proud Member of the Buffalo QRP Connection

From owner-qrp-1@Lehigh.EDU Wed Oct 23 23:12:56 1996

From: "W. Daniel, 9V1ZV" <daniel@pandora.lugs.org.sg>

Subject: [2658] Re: Yet more transistor Qs ... matching

Message-ID: <326e4161.pandora@pandora.lugs.org.sg>

On Tue, 22 Oct 1996 20:38:49 -0400 (EDT), "L. B. Cebik" <cebik@utkux.utcc.utk.edu> wrote:

> a. Suggest you insert an iron core transformer of about 2:1 turns ratio
> (4:1 Z ratio) to reduce the impedance of the input signal to something
> closer to the base impedance requirement. Or 22 turns pri to 10 turns
> sec.

I was thinking along another line:-

Filter wants a 50 ohm termination. $I_e = 49 \text{ mA}$.

$$R_i = 25 * B(ac) / I_e$$

With the 2N3904, the $B(ac) = 21$. If I used a 2N5109, $B(ac) = 85$ so:-

$$R_i = 25 * 85 / 49 = 43 \text{ ohms (approx).}$$

Will this be a much better match as opposed to the 2N3904? Does this mean that a 2N5109 in place will be a better choice? Of course, with the higher $B(ac)$, it would mean a greater signal gain and possibly clipping but I don't know how to calculate that until I figure out why my I_b is so high ($>47 \text{ mA}$) in my calculations.

> b. The I_b calculation is nullified by the mismatch, which means that the
> base is not seeing 0.5V . If you can measure the current from the signal
> source, I suspect you will see a very low value.

Supposing I fix the mismatch, and 0.5V p-p is still present at the base, then I'd still have a pretty hefty current. Which also results in clipping. According to the below post, these calculations refer to RMS voltage instead of p-p so I should derate 0.5V to $0.5/1.414 \text{ V}$. Since:-

$$I_b = E_{in} / I_e$$

and I_e is dependent on the emitter resistor, I_b would be at the mercy of E_{in} anyway.

> c. Is 0.5 v rms , peak, or p-p? Use rms for power calculations, but watch
> the p-p for input clipping. If 0.5 is rms, then peaks are 0.7v pk , which
> means the transistor is shutting off on negative peaks. Reduce output
> voltage and see if the waveform distorts less. If the signal source is
> not capable of significant current sourcing, the voltage will drop on
> peaks that occasion higher current levels, and that will also distort the
> observed waveform. 0.5v is a BIG signal for a 3904.

0.5V p-p is what the schematics and alignment instructions say. But you're right, it is pretty big. I want this stage to take the input and put out 700mW from its present 100mW . Do you think this is possible given that we can achieve 0.5V p-p input. At a match power input should be:-

$$V * V / R = 0.5 * 0.5 / 50$$

$$= 0.005 \text{ W or } 5 \text{ mW}$$

Am I correct on this? If so I am asking to amplify this 5 mW to 700 mW , which is also about 21dB gain for the stage ... pretty high I must say. On

the other hand, I suspect that the input should be more than just 5mW shouldn't it? Maybe my calculations are wrong. If I am right, the stage may be prone to parasitics that arise as a result of the high gain present.

The original circuit put out 100mW for the MRF476 finals. This means that the original gain is about 13dB which is quite reasonable.

> d. Start with the lowest voltage that results in a signal output from the
> amplifier. Ensure a clean waveform both in and out at this level. Raise
> level slightly, and check waveform linearity. Keep doing this until you
> have the desired output level. This will give you better control over the
> variables.
>
> Hope this is useful.

Most definitely.

My intention is to change the MRF476 to an MRF475. The MRF476 has a power gain of 15dB while the MRF475 has a power gain of 10dB. In order to get the same power output, this means that the driver stage needs to make up for the 5dB difference in the finals. In this case the MRF476 is putting out some 3W. The MRF475 is rated for 12W output. Suppose I am aiming for an 8W output, the MRF475 needs about 500 mW which has to come from the driver stage. Assuming that we have a 5mW input (0.5V p-p into 50 ohms termination), then the driver stage will need at least 20dB gain, which is very high.

My question, is this feasible? I know I really should look at an additional stage but I am stuck with this board, and I intend to not add an additional stage as far as possible. I realize that this is not the ideal way, but suppose I insisted on doing it somewhere along these lines, what is the best way to do it?

1. Use a higher gain finals? Eg. MRF260 or MRF261, has 20db and 22dB power gain respectively (extrapolated from VHF figures). Or even an MRF477, which has 15dB power gain, same as the MRF476 but rated for higher power output, then increase the drive?
2. Supply more input to the driver stage? Ie. use more than 0.5V p-p or 5mW?
3. Used a tuned buffer driver stage to increase gain? (14.000 to 14.150 MHz operation).
4. Use a higher gain/power driver? Eg. 2N4427 or 2N5109?
5. Stick to the MRF476 but overdrive it?

Yes, I am aware that the output load for the finals will have to be redesigned for the new power output level but that will come later. Meanwhile, is what I am trying to do possible? Or impractical?

I'd appreciate any help in this experiment. I've been thinking about this for a very LONG time but never been this thorough about it all. Thanks.

73 de 9V1ZV Daniel

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*-----+-----+
| Daniel Wee | daniel@pandora.lugs.org.sg      |
| 9V1ZV      | danwee@singnet.com.sg                    |
| QRP-L #667 | daniel.wee@f516.n600.z6.fidonet.org |
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